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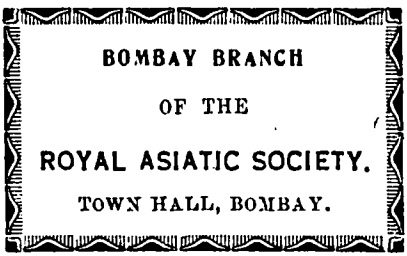


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# THE PEACOCK MOGUL THRONE.

incrusted with Diamonds.

*To the Right Hon.ble Philip Earl of Hardwicke, this Plate, of the most magnificent Pageant of the East is with grateful Respect inscribed by* T. H.

# INDIAN ANTIQUITIES:

OR,

# DISSERTATIONS,

RELATIVE TO

THE ANCIENT GEOGRAPHICAL DIVISIONS,
THE PURE SYSTEM OF PRIMEVAL THEOLOGY,
THE GRAND CODE OF CIVIL LAWS,
THE ORIGINAL FORM OF GOVERNMENT,
THE WIDELY-EXTENDED COMMERCE, AND
THE VARIOUS AND PROFOUND LITERATURE,

## OF HINDOSTAN:

COMPARED, THROUGHOUT, WITH THE
RELIGION, LAWS, GOVERNMENT, and LITERATURE,

OF

## PERSIA, EGYPT, AND GREECE.

THE WHOLE

16223.

Intended as Introductory to, and Illustrative of,

## THE HISTORY OF HINDOSTAN,

UPON A COMPREHENSIVE SCALE.

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VOL. VII. AND FINAL.

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LONDON:

*Printed, for the Author, by H. L. Galabin, Ingram-Court, Fenchurch-Street,*

AND SOLD BY

JOHN WHITE, FLEET-STREET.

M.DCCC.

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TO

# THOMAS PLUMER, Esq.

AND

# ROBERT DALLAS, Esq.

*HIS MAJESTY's COUNSEL,*

LEARNED IN THE LAW.

GENTLEMEN,

I SHOULD be guilty of unpardonable ingratitude, were I to ſuffer the INDIAN ANTIQUITIES to cloſe without paying the public tribute of reſpect, intended by this Dedication, to thoſe kind friends who, at the very commencement of the undertaking, ſo decidedly ſtood forth to promote its ſucceſs and befriend the author. In the dark moment to which I allude, when accumulated difficulties ſtarted up on every ſide to obſtruct the public ap-

pearance of this work, your joint liberality, ſpontaneouſly exerted, ſmoothed the way and diſpelled the gloom. The two firſt volumes, in conſequence, ſhortly after appeared, and my mind could not fail of being impreſſed with the trueſt ſatisfaction, on finding that what you had thus generouſly patronized was honoured with a large portion of the public applauſe.

Through a ſeries of years not a little inauſpicious to great literary efforts, and often with but very ſlender materials, from the mine of Indian ſcience having been hitherto but very ſuperficially explored, with health in not the moſt vigorous ſtate, and with ſpirits conſequently not always free from depreſſion, I have perſeveringly laboured to complete this, and the yet greater, work with which it is connected, till, at length, the vaſt outlines, which I had ſketched for the conduct of both, are, as far as poſſible, filled up, and nothing remains but the grateful taſk of returning thoſe ſincere acknowledgements, which are ſo juſtly due from me to all my generous patrons, both public and private. Among theſe, Gentlemen, beſides yourſelves, I could,

with

with equal pride and pleaſure, enumerate ſome of the moſt illuſtrious characters who preſide on the bench and practiſe at the bar of Britiſh juriſprudence, who, convinced of the intimate connection ſubſiſting between the national code of equity and that ſublimer code, on which, indeed, it is, in a great degree, founded, and the leading principles of which are throughout theſe pages humbly attempted to be defended and illuſtrated, have uniformly befriended this growing work in every ſtage of its progreſs towards maturity, and have rejoiced to behold obſtacles ſurmounted and difficulties ſubdued. Nor has this generous patronage been ſolely confined to the circle of thoſe who preſide and practiſe in the courts of *common* law; ſince, from ſome who preſide in thoſe of the *civil* law of this country, I have alſo received ſuch flattering marks of attention, as I muſt remember with fervent gratitude to the lateſt hour of my life.

Gentlemen, forgive me, if, on this occaſion, I cannot avoid indulging a ſmall portion of, I truſt, a laudable vanity: for, to be honoured, on the one hand, with the pa-

tronage of men, by ſtation ſo highly elevated, and themſelves ſuch accompliſhed proficients in literature, as the preſent Lord High Chancellor, the Maſter of the Rolls, Lord Eldon, and Sir Giles Rook; and, on the other, with the decided applauſe of characters ſo deſervedly eſtimated by their countrymen, as Sir William Wynne, Sir William Scott, and Sir John Nicholl, falls to the envied lot of but very few writers of the age. I truſt theſe diſtinguiſhed perſonages will not be offended at my thus publicly ſtating to you, and to the public, my peculiar obligations to them, nor refuſe to accept of my warmeſt acknowledgements for their continued kindneſs.

Among the numerous barriſters, diſtinguiſhed by talents and by ſcience, whom I am alſo proud to rank among my friends and ſubſcribers, I am bound by gratitude at leaſt to mention one, Mr. MACKINTOSH, whoſe obliging notice of my efforts, in the very elegant proſpectus to his intereſting lectures, demands, and has, my warmeſt thanks. At no period of our hiſtory, I believe, was the Engliſh bar filled by men of more tranſcendent abilities, of purer principles,

principles, or more independent minds. The great body of artiſts, alſo, in this kingdom, who do not diſlike a little *high colouring* in ſtyle, I have the greateſt reaſon to think decidedly friendly to my work; though many of them have not ceaſed to lament that my plates are by no means adequate to the importance of the ſubjects diſcuſſed. On ſome future occaſion, poſſibly, with their kind aſſiſtance, that error may be rectified.

The conviction, Gentlemen, of your particular and practical knowledge of Indian Juriſprudence, evinced, on a memorable occaſion, in the higheſt court of judicature known in this country, excites in my mind no ſmall degree of anxious apprehenſion, while I inſcribe to you a volume containing an expreſs treatiſe on the ancient government and legal inſtitutions of that mighty empire. Little converſant, from different habits and purſuits of life, in legal reſearches, I would willingly have declined altogether engaging in the ſubject; but a diſſertation on Indian juriſprudence forms a part of my original propoſals, publiſhed long before Sir William Jones favoured the learned

world

world with a tranſlation of Menu's Inſtitutes, which are now in the hands of moſt profeſſional men. Though that circumſtance has enabled me greatly to curtail my diſquiſitions on that curious head of Indian literature, yet it by no means releaſes me from the obligation I am under to the general claſs of my readers, who may not be poſſeſſed of the work in queſtion. The conciſe obſervations which I have ventured to offer on the legiſlature of India and that ſingular code, compoſed of ſuch heterogeneous ingredients, that jargon (for ſo I muſt call it) of deſpotiſm to men and benevolence to brutes, of ſenſe and abſurdity, of the ſublime and the puerile, are the reſult of conſiderable attention to the ſubject, founded partly on what I have been able to collect from ancient claſſical writers, and partly from the few genuine Hindoo documents as yet in our poſſeſſion. They might eaſily have been made longer, and are, in fact, themſelves only an abridgement of a more extended eſſay; but, as I have in that Diſſertation apologetically obſerved, the work itſelf has been ſince reprinted and widely circulated in Europe. It

is

is entered into in ſufficient detail to gratify the curioſity of the general reader, and the legal ſtudent will probably not reſt content without conſulting the original. My intention, in giving a regular analyſis of the code, was, by leaving out what appeared to be its interpolated abſurdities, to preſent it to the reader in a more connected point of view, and better worthy of the wiſdom of the ſublime legiſlator to whom it is attributed.

The legal Diſſertation, though the laſt in order of thoſe that occupy the pages of this final volume, I have introduced firſt and more particularly to your notice, Gentlemen, becauſe it is the one in which you will probably find yourſelves moſt intereſted. It contains two others, intimately connected with Indian commerce and literature, to which I beg permiſſion to make theſe dedicatory pages ſomewhat introductory.

When the Arabian chiefs, in the ſeventh century of the Chriſtian æra, poured their myriads into the plains of Hindoſtan, they found there ſuch ſuperabundant wealth, the tribute of all nations for innumerable ages, as occaſioned the writers of that country

to

to invent the romantic fiction that, among other rarities peculiar to India, a tree was diſcovered there of pure gold,* and of enormous ſize, ſpringing naturally out of the ſoil, thus realizing Milton's fable of the vegetable gold that grew in the delightful paradiſe of his fancy. According to writers, however, hereafter referred to, of ſomewhat better authenticity than thoſe fablers, nothing could equal, in the ancient periods that preceded their irruption, the aſtoniſhing magnificence diſplayed in the pagodas. The lofty roofs and columns of thoſe ſtupendous edifices are reported to have been entirely covered with that beautiful metal; the high-raiſed altars blazed with a profuſion of gems; the breaſts and veſtures of their monſtrous idols were covered with ſtrings of the loveliеſt pearl, while their eyes ſparkled with the borrowed luſtre of emeralds and rubies. I thought it could not fail of being peculiarly intereſting to that very large and reſpectable portion of my readers who are commercially connected with India, to trace to

* See Orme's Hindoſtan, vol. i. p. 9.

their

their ſource, in the vaſt, but now probably exhauſted, mines of Africa and Aſia, the ſtreams of that amazing wealth, by way of appendix to the Diſſertation on the ancient commerce of India in the ſixth volume of theſe Antiquities. The picture, it muſt be owned, is extremely gaudy and magnificent, but I truſt it is not overcharged.

The arts and ſciences of India, which I have conſidered under the general head of its literature, were carried, in periods of the moſt remote antiquity, to ſo high a point of excellence as opens to the European ſcholar an immenſe field for reflection. In this inſtance alſo I have endeavoured to do the ancient Indians ſtrict juſtice without exaggeration; but, on ſome points principally relating to their unparalleled advance in mechanical ſcience, conſiderable difficulties ariſing, and there being ſuch a deficiency of written materials in Europe for proving the points contended for; to ſubſtantiate thoſe points I have had recourſe to the following plan of inveſtigation and deciſion, in which, if my author Sir William Jones was, as I have every reaſon to think, correct in his original poſitions,

ſitions, I could ſcarcely fail of being alſo correct in my deductions.

By a train of forcible arguments, ſtrengthened by an ingenious aſtronomical calculation, that equally zealous and judicious explorer into the genuine antiquities of Aſia has fixed the period of the firſt promulgation of Menu's Inſtitutes to that of the eſtabliſhment of the firſt monarchies in Egypt and Aſia, which could not have taken place many ages poſterior to the deluge; and their firſt publication, as a code of written laws, to about the year 1280 before Chriſt. Now when we read in that code of the *engraving and piercing of gems*, and particularly *of diamonds*, an art only recently known in Europe, we know they muſt neceſſarily have had the uſe of thoſe fine ſteel inſtruments without which that operation could not poſſibly have been performed, and conſequently that they muſt have been very excellent metallurgiſts as early after the deluge as can well be conceived. Again, when, in the ſame book, we read of a particular *caſt*, or claſs, whoſe ſole occupation it is to attend *ſilk-worms*, we can aſcertain, however diſputed

in

in favour of the Chineſe at a later date, the very early period when ſilk-weaving flouriſhed in India. To the ſame deciſion we are irreſiſtibly led in reſpect to the art of making pottery and porcelain, which induced me to determine that the ancient Murrhins were not chryſtal or agate, but a fine kind of porcelain, and I rejoice to hear that ſo good a judge of the ſubject as Dr. Vincent, whoſe book I have not yet ſeen, confirms the fact contended for. The portion of my book, in which that aſſertion ſtands, was printed off long prior to the appearance of his. A variety of ſimilar proofs may be brought of their having been, in thoſe ancient periods, good *chemiſts*, *aſtronomers*, *architects*, *geometricians*, and even *anatomiſts*, an aſſertion ſo often and ſtrenuouſly denied; and, for theſe proofs, I refer the reader to the parts of the Diſſertation that relate to thoſe facts.

Such, Gentlemen, is the ſpecies of entertainment which I have endeavoured gratefully to provide for yourſelves and the indulgent public in the preſent volume of Indian Antiquities; and, while I take a final adieu of a ſubject that has engroſſed ſome years of my life, moſt fervently do I hope that

that my humble eſſays may only be the forerunner of ſome grander effort more fully and effectually to diſplay them, ſince my mind is eternally impreſſed with the conviction from which, indeed, I have uniformly acted, that every additional reſearch into their early annals and hiſtory will ultimately tend (not to weaken and ſubvert, as the ſceptic vainly preſumes, but) to ſtrengthen and ſupport the Moſaic and Chriſtian codes, and, conſequently, the higheſt and beſt intereſts of MAN.

I have the honour to be,

GENTLEMEN,

with the trueſt reſpect,

your ever obliged and faithful ſervant,

THOMAS MAURICE.

*Britiſh Muſeum,*
*July* 1, 1800.

# ADVERTISEMENT.

THE frontiſpiece of this volume, exhibiting the famous peacock-throne of the Mogul emperors of India, the ſubjoined account of that throne by the Baron Tavernier, who ſaw it about the end of the laſt century, will probably prove acceptable to the reader. He ſpeaks of one peacock only, but two appear in this print, which was drawn, at Delhi, by an European artiſt in the train of Nadir Shah, who, on the plunder of that city in 1739, broke it to pieces, and carried the jewels that compoſed it into Perſia, whence they have been ſcattered through Aſia and Europe.

"The Great Mogul has ſeven thrones, ſome ſet all over with diamonds; others with rubies, emeralds, and pearls. But the largeſt throne is erected in the hall of the

firſt court of the palace; it is, in form, like one of our field-beds, ſix feet long and four broad. I counted about a hundred and eight pale rubies in collets about that throne, the leaſt whereof weighed a hundred carats, but there are ſome that weigh two hundred. Emeralds I counted about a hundred and forty, that weighed ſome threeſcore, ſome thirty, carats.

" The under part of the canopy is entirely embroidered with pearls and diamonds, with a fringe of pearls round the edge. Upon the top of the canopy, which is made like an arch with four panes, ſtands a peacock, with his tail ſpread, conſiſting entirely of ſapphires and other proper coloured ſtones: the body is of beaten gold, enchaſed with numerous jewels; and a great ruby adorns his breaſt, to which hangs a pearl that weighs fifty carats. On each ſide of the peacock ſtand two noſegays, as high as the bird, conſiſting of various ſorts of flowers, all of beaten gold enamelled. When the king ſeats himſelf upon the throne, there is a tranſparent jewel, with a diamond appendant of eighty or ninety carats weight, encompaſſed with rubies and emeralds, ſo

ſuſpended

ſuſpended that it is always in his eye. The twelve pillars alſo, that uphold the canopy, are ſet round with rows of fair pearl and of an excellent water, that weigh from ſix to ten carats a piece. At the diſtance of four feet, upon each ſide of the throne, are placed two umbrellas, the handles of which are about eight feet high, covered with diamonds; the umbrellas themſelves, being of crimſon velvet, embroidered and fringed with pearl. This is the famous throne which Timur began and Shah Jehaun finiſhed, and is really reported to have coſt a hundred and ſixty millions and five hundred thouſand livres of our money."*

For an account of the curious mythological repreſentation of the planet SANI, or SATURN, with his *ring* formed of *ſerpents*, the reader will pleaſe to conſult page 605 of this volume and the ſubſequent remarks.

The enumeration of the pages is continued from the ſixth volume, which cloſed with 440. The reaſon is, that the firſt Diſſertation in *this* volume was originally intended to have come into the preceding one

* Tavernier's Indian Travels, tom. iii. p. 331, edit. 1713.

but, on making up the book, it was found that the addition would have rendered that volume disproportionably large: it was, therefore, reserved for the present.

*P. S.* There having been of late a considerable demand for the two volumes of Indian Antiquities (long out of print) which contain the Dissertation on the Asiatic Trinities, to accommodate the public, the author has, at a very great expense, reprinted the whole of that Dissertation in one volume, which, with all the plates illustrative of the doctrine, may be had at Mr. Gardiner's, Prince's Street, Cavendish-Square, price *twelve shillings*. The impression consists of only 250 copies, and it can on no account be again printed distinct from the larger work to which it properly belongs.

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*The Binder will place the print of the* MOGUL THRONE *opposite the title; and that of the* PLANET SANI *before the Dissertation on the Literature of the Indians.*

A

# DISSERTATION

ON THE QUANTITY OF

## BULLION AND COINED MONEY

## *IN THE ANCIENT WORLD;*

COMPRISING A SHORT HISTORY OF THE GOLD AND SILVER MINES OF ASIA,

AND

A SURVEY OF THE IMMENSE TREASURES

POSSESSED BY THE

## ANCIENT SOVEREIGNS OF INDIA.

A

# DISSERTATION, &c.

## SECTION I.

HAVILAH, *the Land of Gold,* — *the ancient Mines of* ARABIA *and* ETHIOPIA, — *the Treaſures in Bullion of the ancient* EGYPTIAN *Sovereigns,* — *the golden* SOFALA, *the Source of the Wealth of the* TYRIANS *and* SOLOMON, — *the former, however, had another abundant Source in the Mines of* SPAIN, *the* PERU *and* POTOSI *of Antiquity.* — *A Deſcription, from the Prophet* EZEKIEL, *of the Magnificence of ancient Tyre.* — *The Sources of the Wealth of the* ASSYRIAN *or* BABYLONIAN *Empire inveſtigated, and that Wealth exemplified in the Ornaments of the Temple of* BELUS *and the* DEA SYRIA. — *Brief Strictures on coined Money and the* DARICS *ſtruck at* BABYLON. — *The Empire of* ASIA, *and the Current*

*rent of Wealth which conſtantly followed it, transferred, by* CYRUS, *from* BABYLON *to* SUSA. — *The immenſe Wealth in Bullion and coined Money of the ancient* PERSIANS, — *its principal Sources, its own Mines in* CARMANIA, *the Mines of* LYDIA *and* THRACE, *and the vaſt internal Commerce carried on with* INDIA. — *The Whole fell a Prey to* ALEXANDER *on his Conqueſt of Perſia, and to his Captains after his Deceaſe.* — *The ſilver Mines of* ATTICA, *and the accumulated Treaſures preſerved in the* GRECIAN *Temples, conſidered.* — *Thoſe Temples, the public Banks of* GREECE, *and the Prieſts the Bankers.* — *A Survey is now taken of the Wealth of ancient* INDIA, — *the great central Depoſit, for many Centuries, of the Bullion both of the Eaſtern and Weſtern World,* — *that Bullion principally melted down and formed into Statues of the numerous ſuperior and ſubordinate Deities of* INDIA, *as well as to fabricate the ſplendid Utenſils of their Temples.* — *An Account of the Treaſures of that Kind found in thoſe*

*Temples*

*Temples by Sultan* MAHMUD, *of* GAZNA, *and other Invaders of* HINDOSTAN.—*The Author returns from* HINDOSTAN *to the Conſideration of the Wealth obtained by* ALEXANDER, *and its Diſperſion by his Succeſſors, the* PTOLEMIES *of* EGYPT, *the* SELEUCIDÆ *of* SYRIA, *and the* MACEDONIAN *Sovereigns.*—*The whole Wealth of* ASIA *centred finally among the* ROMANS.—*A conſiderable Part diſſipated by their Profligacy; a ſtill more conſiderable Portion fell to the Lot of the Goths, Vandals, and other barbarous Nations who plundered* ROME; *but, by far the moſt conſiderable Portion was buried, during the Times of Tyranny and Turbulence, in that Earth from which it originally came.*

TO form any adequate idea of the wealth of the ancient world in gold and ſilver *bullion*, we muſt turn our eyes to the countries in which mines were firſt diſcovered and wrought. Now the region, moſt early mentioned in hiſtory ſacred and profane as producing gold, is HAVILAH, in the Pentateuch

of Moſes, and the gold which it produced is ſaid to have been remarkable for its purity. Havilah, which the river Piſon watered, is, by the beſt commentators, aſſerted to be Arabia; and, accordingly, we read both in Agatarchides and Strabo, that Arabia anciently abounded in gold in ſo extraordinary a manner, that its inhabitants would give double the weight of that valuable metal for iron, treble its weight for braſs, and ten times its weight for ſilver.* We are informed by thoſe authors, that, in digging the earth in the ſouthern parts of Arabia, they found pieces of gold that needed not the refiner's fire ſometimes as big as olive-ſtones, and, at others, as big as walnuts; and that, in particular, through the country of the Deliæ, ran a ſtream, in whoſe ſands were intermixed pieces of gold of conſiderable magnitude, while the ſand at its mouth appeared as one ſhining ſolid maſs entirely compoſed of it, and that the furniture and utenſils of their houſes, their cups and veſſels, were made of it. On this account, as well as its producing ſuch

* Vide Agatarchides Cnid. apud Photium, p. 1370, et etiam Strabonis Geograph. lib. xvi. p. 583.

quantities

quantities of myrrh, caſſia, frankincenſe, and all the fineſt drugs and perfumes, that part of Arabia obtained the name of Felix.

Although a conſiderable portion of this relation may have truth for its baſis, yet the greater part is probably exaggerated; for the immemorial trade of the Arabians to the coaſt of Africa was, doubtleſs, one ſource of their thus abounding in thoſe precious metals, which are the chief object of traffic. Of their early engagement in commercial concerns, no ſtronger teſtimony need be brought than that which Scripture itſelf affords; for, it was to a caravan of Iſhmaelitiſh (that is, Arabian) merchants, going down to Egypt with ſpices and balm, that the patriarch Joſeph was ſold. To Africa, therefore, and particularly to the Ethiopians, we muſt next direct our courſe, as a principal and unfailing ſource of the riches of the ancient world; for, in truth, every province of that vaſt empire abounded in mines: gold was borne down by torrents from the mountains, and flowed in the ſtreams of the valley; the Ethiopians anciently had ſuch plenty of it, that, to ſhew their contempt for what excited the envy and admiration of the whole

world

world beſide, they are ſaid to have manacled their priſoners taken in war with golden fetters.

There is a curious account given in Diodorus Siculus of the mode after which the Egyptians worked and refined the metal obtained from the mines in the Thebais; for the Lower Egypt, as we before obſerved, was entirely deſtitute of mines. They commenced the operation by pounding the ore, and reducing it to grains of the ſize of millet. It was then reduced to powder under mill-ſtones of great weight. The gold-duſt, thus finely ground, was ſpread, as in the proceſs uſed in reſpect to the tin ore, detailed above, over a floor of boards, ſomewhat inclined, and well waſhed with water, which ran off from the ſloping declivity, bearing with it the groſſer terreſtrial particles that had adhered to it. This waſhing was ſeveral times repeated; and the ore, after having been well rubbed between the hands of the workmen, and thoroughly cleaned by ſponges from all remaining filth, was conſigned over to thoſe whoſe buſineſs it was to ſmelt it. Theſe artiſts depoſited the gold duſt in earthen vaſes, mixing with it, in certain proportions, LEAD, ſalt,

ſalt, TIN, and barley-meal; and theſe, being cloſely covered and luted, were placed for five days and nights in a ſtrong refining-furnace. When that period was elapſed, and the metal cooled, they opened the veſſels; and, examining the gold, found it perfectly pure, and very little diminiſhed in quantity.* This proceſs, of ſeparating and refining the ore of gold, the ancients inform us, was immemorially practiſed in Egypt, and, in reality, it does not materially differ from that uſed at the preſent day; lead, tin, and the labour of repeated fuſion, being ſubſtituted by the ancients in the room of the more rapid and eaſy proceſs of the moderns, by means of mercury. In thoſe early periods, however, when as yet both the neceſſities and the luxuries of life were fewer, gold was frequently found in a ſtate that needed no refining. Without deſcending into the dark boſom of the mine, virgin gold was frequently to be met with near the ſurface, as it was diſcovered in Peru, and is now found in Achem.

* See Diod. Sic. p. 184; and Agatarchides apud Photium in loco citato.

Of

Of the immenſe quantity of gold poſſeſſed by the Egyptians, as well as their elegant manufacture of it, in the very early ages to which we allude, abundant teſtimony may be brought from writers, both ſacred and profane, and to their combined evidence we ſhall conſtantly appeal, when poſſible, for the truth of our aſſertions throughout this Diſſertation. Diodorus, deſcribing the grand mauſoleum of Oſymandyas, informs us, that the exact ſum of the gold and ſilver dug from the mines of the Thebais, as inſcribed on the walls of that temple, amounted to 3,000,000,000 of minæ, or ninety-ſix millions of our money; and mentions, in farther proof of the magnificence of that monarch, the ſtupendous circle of wrought gold, 365 cubits in circumference, the number of the days of the reformed year of Egypt, which ſurrounded his tomb.* From a ſtill more authentic record, the Pentateuch of Moſes, may be adduced, in evidence, the *golden chain* which Pharoah placed around the neck of Joſeph, when he raiſed him to the dignity of cup-bearer; the *exceeding riches in gold and ſilver* carried by

* Diodorus Siculus, lib. i. p. 44.

Abraham

Abraham out of Egypt; the multitude of gold and ſilver vaſes, and other valuable trinkets, which the Iſraelites, though in a ſtate of abject ſervitude, at their exodus, obtained of their wealthy neighbours; and the bracelets, the ear-rings, and the claſps of gold, which they afterwards voluntarily offered to Moſes for the fabrication of thoſe ſumptuous works, for the golden crown, the table of ſhew-bread, and the rich chandelier of beaten gold, devoted to the holieſt rites of their religion. The greateſt mart, however, for this metal on the African coaſt, was the golden Sofala, which Mr. Bruce has inconteſtably proved to be the Ophir of Scriptures; and it was probably from thoſe mines that David and Solomon obtained thoſe immenſe treaſures, which animated the former to project, and enabled the latter to complete, the ſtately Temple of Jeruſalem with all the various golden ornaments uſed in its public worſhip. In one voyage only, the ſhips of Solomon are reported by Joſephus to have brought home four hundred and fifty talents of gold; by which the writer meant the talent uſed at Tyre, moſt probably current at Jeruſalem, and thought by Arbuthnot to be of the ſame

value

value as that of Attica, amounting to between three and four millions ſterling.* If theſe voyages to Ophir were frequently repeated, there can be but little of hyperbole in that expreſſion which occurs in Scripture, of his making ſilver to be *at Jeruſalem as the ſtones of the ſtreet*; becauſe ſilver at that time bore a far inferior value to gold than it bears in theſe days; it being then in the proportion of ſixteen to one; whereas, it is now only as twelve to one. Nor can we wonder at David's having left in his treaſury *a hundred thouſand talents of gold*, and *a thouſand thouſand talents of ſilver*. 1 Chronicles, xxii. though we cannot, in this inſtance, compute by the Eubœan talent, which in gold, according to the ſame author, would amount to 547,500,000*l.* and in ſilver to above 342,000,000*l.* of our money; an enormous and incredible ſum, which the treaſury of no ſovereign or nation on earth ever contained. Dr. Arbuthnot, therefore, judiciouſly contends that we ſhould calculate by the moſt ancient Phœnician talent, alluded to by Homer, (and, in conſequence,

* Vide Joſephi Antiquit. lib. vii. and Arbuthnot on Ancient Coins, p. 42.

called

called by him *Homeric*,) of value far leſs conſiderable. Probably Joſephus gives us the true amount of that wealth, when he ſtates the whole at the round ſum of 100,000 talents; that is, the Alexandrian talent, moſt in uſe at the period of his writing.

Hiero, the Phœnician monarch, we are told, inſtigated by perſonal friendſhip, and his admiration of the conſummate wiſdom of Solomon, in his favour broke through that jealous reſerve which marked all the naval proceedings of that enterprizing nation. He not only aſſiſted the Jewiſh ſovereign with his ſubjects to build a fleet for the expreſs purpoſe of commerce, but alſo to navigate that fleet to the deſtined port, to the rich ſource of that wealth which exalted Tyre to her envied pre-eminence in power and ſplendor over all the cities of the ancient world. If the ſatellite was thus bright in riches and in glory, with what ſurpaſſing, with what unequalled, luſtre muſt the primary orb have been inveſted; for, it was not only from the golden Sofala, and the ports of Africa, that ſhe obtained this infinite ſupply of bullion, but we have ſhewn that, in the mines of the Pyrenæan mountains, at once the PERU and POTOSI of antiquity,

quity, ſhe found an additional and never-failing ſpring of overflowing treaſure. I have already, in the preceding Diſſertation, given a very ample account of their abundant produce in the times of the Phœnicians trading thither; but, when they ceaſed to be ſo abundantly productive of ore, it is impoſſible to aſcertain. I need only add to that account, that, in the time of Strabo, the Romans kept forty thouſand men conſtantly employed in thoſe mines; and that they produced to them twenty-five thouſand drachmas a day.* Full credit, therefore, may be given to the teſtimonies which the records of all nations bear to the profuſion of gold and gems worn by the inhabitants, and diſplayed in the temples and palaces, of Tyre. Of her aſtoniſhing wealth, and the rich ſpecies of manufactures in which ſhe dealt, no more impreſſive evidence from profane authors need be adduced than the ſplendid donation ſent by her to the temple of the Tyrian Hercules at Gades, and mentioned in the preceding pages; the golden belt of Teucer, and the golden olive of Pygmalion, exquiſitely wrought, bearing Smarag-

* Strabo, lib. iii. p. 379.

dine

dine fruit; that is, berries of emerald, repreſenting olives in the utmoſt perfection. This teſtimony of Apollonius, in Philoſtratus, who viſited the temple of Gades, in the firſt century of the Chriſtian æra, added to that of Herodotus, previouſly cited, concerning the dazzling ornaments of her own principal temple, ſeen by that hiſtorian many centuries before, the two lofty pillars of gold and emerald, which illuminated the whole dome by their reflected ſplendor, are fully confirmed by the decided voice of Scripture itſelf; not only in reſpect to their elegant work in gold and ivory in the palaces of Solomon and the temple of Jeruſalem, but more particularly and minutely in the following animated apoſtrophe, which is too intimately connected with many of the ſubjects diſcuſſed in this volume, and exhibits too intereſting a detail of the ſplendor of an ancient commercial metropolis to be omitted; for, in truth, it was the gold of Ophir and the ſilver of Spain that formed the baſis of all her magnificence.

"O Tyre," exclaims the prophet, "thou haſt ſaid in thyſelf, I am a city of perfect beauty. Thy neighbours, who built thee, have forgot nothing to embelliſh thee. They have

made the hull and the diverſe ſtories of thy ſhips of the fir-trees of Senir. They have taken a cedar from Lebanon, to make thee a maſt. They have poliſhed the oaks of Baſhan, to make thine oars. They have employed the ivory of the Indies, to make benches for thy rowers; and that which comes from Italy, to make thy chambers. Fine linen, with broidered work from Egypt, was that which thou ſpreadeſt forth to be thy ſail. Hyacinth and purple, from the iſles of Eliſhah, have made thy flag. The inhabitants of Sidon and Arvad were thy rowers; and thy wiſe men, O Tyre, became thy pilots. All the ſhips of the ſea, and all their mariners, occupied thy commerce and thy merchandiſe. The Carthaginians trafficked with thee, and filled thy fairs with ſilver, with TIN, and LEAD. Javan, Tubal, and Meſhech, were alſo thy merchants, and brought to thy people ſlaves and veſſels of braſs. They of Togormah traded in thy fairs with horſes and mules. The children of Dedan trafficked with thee. Thy commerce extended to many iſlands, and they gave thee, in exchange for thy merchandiſes, magnificent carpets, ivory, and ebony. The Syrians were thy merchants, becauſe of the multitude of

thy

thy works: they expoſed to ſale in thy fairs pearls, and purple, embroidered works of byſſus, ſilk, and all ſorts of precious merchandiſe. The people of Judah and of Iſrael were alſo thy merchants, they traded in thy markets pure wheat and balm, honey, oil, and roſin. Damaſcus, in exchange for thy wares, ſo varied and ſo different, brought thee great riches, excellent wine, and wool of a lively and ſhining colour. Dan, Greece, and Moſel, traded in thy markets, iron works, and myrrh, and calamus. Arabia, and the princes of Kedar, were alſo thy merchants; they brought thee their lambs, and rams, and goats. Shebah and Ramah came alſo to traffic with thee; they traded in thy markets the moſt exquiſite perfumes, precious ſtones, and gold. Thine were the moſt remarkable of all the ſhips of the ſea. Thy rowers conducted thee upon the great waters. Thou haſt been loaded with riches and glory: never any city was like thee. Thy commerce enriched the nations, and the kings of the earth."*

It ſhould here be obſerved, that the prophet Ezekiel, to whom we are indebted for this

* Ezekiel, chap. xxvii. and xxviii.

valuable picture of the grandeur of the Phœnician metropolis, flouriſhed nearly 600 years before Chriſt, when Tyre was in the zenith of that glory, which ſhortly after bowed its head before the monarch of Aſſyria. To Aſſyria, therefore, and principally to Babylon, the mighty capital of the greateſt empire the ſun ever beheld, it is now neceſſary that I ſhould direct the attention of the reader during our farther inveſtigation of the curious ſubject before us, the treaſures of gold and ſilver bullion amaſſed in the ancient world.

Aſſyria had no gold or ſilver mines of her own; but, being the central region of that part of Aſia in which commerce ever moſt vigorouſly flouriſhed, ſhe abſorbed, as in a vaſt vortex, the wealth in this article, in which ſhe ſo ſuper-eminently abounded. We are aſtoniſhed, in the infancy of mankind, and in the dawn of ſcience, to find works executed at once ſo coſtly and ſo ſtupendous. Thoſe, fabricated in the precious metals alluded to, alone form the object of our preſent inquiry; and here, in the great temple of Belus, built by Semiramis, we find three prodigious ſtatues, not of *caſt*, for they are expreſſly ſaid to have been of *beaten* gold, repreſenting Jupiter, the

the father of all, Juno, the queen of heaven, and Rhea, the univerſal mother. The ſtatue of Jupiter appeared erect, and in a walking attitude; it was forty feet in height, and weighed a thouſand Babylonian talents. The ſtatue of Rhea alſo weighed the ſame number of talents, but was ſculptured ſitting on a throne of maſſy gold, with two lions ſtanding before her, as guardians of the ſtatue, accompanied with two huge ſerpents in ſilver, that weighed each thirty talents. The ſtatue of Juno was in an erect poſture, and weighed eight hundred talents: her right hand graſped a ſerpent by the head, and her left a golden ſceptre, incruſted with gems. Before theſe three coloſſal figures ſtood an altar of beaten gold, forty feet in length, fifteen in breadth, and of the weight of five hundred talents. On this altar ſtood two vaſt flagons weighing each thirty talents; two cenſers for incenſe, probably kept continually burning, each weighing five hundred talents; and, finally, three veſſels for the conſecrated wine, of which the largeſt, that aſſigned to Jupiter, weighed three hundred talents, and thoſe to Juno and Rhea ſix hundred talents.* Such is the relation given

* Vide Diod. Sic. lib. ii. p. 98.

by Diodorus of the ornamental decorations of this ſuperb fane, and, though borrowed from Cteſias, may probably be, for the moſt part, true. It certainly is in uniſon with the magnificent taſte of the times, and might eaſily have been accompliſhed by the immenſe ſums that flowed, in a golden inundation, into that capital from Arabia and all the adjoining provinces ſubject to the crown of Aſſyria.

If this relation, however, ſhould appear wholly incredible, let us appeal to the authority of Holy Writ for an account of the exhibition of Aſſyrian wealth, ſcarcely leſs ſurpriſing; and this diſplay we find in the coloſſal image of gold which Nebuchadnezzar, after the plunder of Jeruſalem, and probably from the ſuperb ſpoils of its temple and royal palace, erected to his god Belus, that is, *the Sun*, whoſe ray matures the growing ore, the Sun equally adored with ſimilar rites and by the ſame appellation, in ancient Britain and ancient Babylon, in the extenſive plain of Dura. This ſtatue, to form which was ſo baſely proſtituted the enormous aggregate of wealth heaped up by David and Solomon for a nobler purpoſe, and a far more refulgent deity, was ſixty cubits in height, which there-

fore

fore vaſtly exceeds that erected to Jupiter Belus by Semiramis, ſixty cubits being nearly equal to ninety feet; it was alſo ſix cubits in breadth; and the whole was of beaten gold. Now Dr. Prideaux computes the weight in gold of the former ſtatue, viz. one thouſand talents, to be equal to three millions and a half ſterling, and the value of that of Nebuchadnezzar riſes conſequently in proportion to its additional height.* That author, fearful of the apparent exaggeration, would allow only forty cubits to the ſtatue, and twenty for the pedeſtal; but this is contrary to the expreſs words of Scripture, and the dimenſions will not appear incredible to thoſe who conſider that this coloſſus was probably intended as an exhibition of the hoarded wealth of the treaſury of Babylon, and conſiſted of the golden ſpoils of Egypt, Syria, and Paleſtine, recently ſubdued by this powerful and oſtentatious monarch. The whole, or, at leaſt, far the greater part, of this wealth, afterwards, at the conqueſt of Babylon by Cyrus, fell into the hands of the Perſian ſovereigns, who, transferring the ſeat of empire and its

* Prideaux's Connections, vol. i. p. 100.

accumulated treaſures to Suſa, invite our ſteps to the new metropolis.

Although, as has been before obſerved, there are at preſent no mines of gold or ſilver open in Perſia, there are, according to Charden, evident remains of thoſe that have been wrought in ancient times, and were either exhauſted, or ſtopt for want of timber; an article in which that country is, in many parts, miſerably deficient, eſpecially in the *deſert Carmania*, where thoſe remains are moſt viſible. From its being ſo mountainous a region, as well as ſo productive of ſulphur and copper, in the neighbourhood of which gold is generally found, there can be no doubt of its ſtill containing ſuch mines, were a ſpirit of active induſtry ſet in motion to make the proper ſearch; or, rather, were not the ſinews of that induſtry palſied by the iron hand of deſpotiſm.

For an abundant ſupply, however, of gold and ſilver, during the period that elapſed from Cyrus to the death of the laſt Darius, no internal reſources were neceſſary to the Perſians, ſince the whole wealth of Egypt and Aſia continued to flow, by various channels, into that empire. In the firſt place, all the produce

produce of the mines of Lydia, that made Crœſus, next to the ſovereigns of Perſia and India, (India, at that time but little known to the nations of Aſia ſituated to the weſt of the Seendhu,) the richeſt monarch of the Eaſt, at the conqueſt of Sardis, fell into the hands of Cyrus: and, though we have no exact account of the particulars of that wealth, we are able to form ſome idea of it, from the magnificent preſents which Crœſus is affirmed, by Herodotus, to have repeatedly ſent to Delphos, and the grand holocauſt, conſiſting of beds of gold and ſilver, ornamental veſſels of the ſame precious metals, robes of purple, ſilken carpets, and other rich furniture, which he cauſed to be publicly burned in one enormous pile, in order to render that oracle propitious to his future undertakings;—a holocauſt into which the wealthieſt of the voluptuous citizens of Sardis threw alſo their moſt coſtly furniture, and in the very aſhes of which was found ſo much melted gold, that, according to the ſame hiſtorian, out of the ſplendid metallic maſs were formed one hundred and ſeventeen golden tiles; thoſe of the greateſt magnitude, ſix ſpans in length; thoſe of the ſmalleſt, three ſpans; but all one ſpan

in

in thickneſs.* There cannot, indeed, be adduced a more convincing proof of the unequalled wealth of the Lydians, nor of the tranſmutative power of ACTIVE WIDELY-DIFFUSED commerce, than the aſtoniſhing relation which we find in Herodotus, of the wealth of Pythias, a merchant of that country, who was enabled by that commerce, in after-ages, when Lydia flouriſhed in meridian ſplendor, under the powerful protection of the imperial dynaſties of Perſia, to preſent Darius, as we have before had occaſion to remark, with a plane-tree and a vine of wrought gold; and, as he had thus ſhewn his munificence to one ſovereign, ſo did he not leſs diſplay hoſpitality blended with munificence to the other; for, when Xerxes marched with his innumerable army againſt Greece, the ſame Pythias not only entertained, at Celænæ, in Phrygia, the whole of this vaſt army, but made him a proffer, towards the charges of carrying on that war, of two thouſand talents of ſilver, and three millions nine hundred and ninety-three thouſand gold Darics. With which noble act of generoſity Xerxes was ſo charmed, that

* See Herodotus, lib. i. p. 47, et ſeq.

inſtead

inſtead of accepting the proffer, he ordered ſeven thouſand additional Darics to be given to Pythias from the royal treaſury, to make up the round ſum of four millions in gold.

In the ſecond place, it ſhould be remembered, that the whole amaſſed wealth of Egypt felt the plundering hand of Cambyſes, whoſe vindictive fury led him not merely to plunder, but to deſtroy, the temples of Egypt; and that, at the burning of that of Thebes, the remains of the wealth ſaved from the flames amounted to three hundred talents of gold and two thouſand three hundred talents of ſilver: but the richeſt article among the ſpoils of that temple was the ſtupendous circle of gold, inſcribed with the zodiacal characters and aſtronomical figures, that encircled the ſepulchre of Oſymandes. At Memphis, alſo, then the capital of the empire, he obtained, in the ancient palace of the Pharaohs, ſuch an immenſe treaſure in bullion, and ornamental vaſes, and ſtatues of gold and ſilver, repreſenting gods and deified men, as perhaps no palace ever before contained; and many of theſe ſtatues were reſtored, ſome ages afterwards, to the tranſported Egyptians, by Ptolemy, the ſon of Philadelphus, when his armies had vanquiſhed Antiochus,

Antiochus, the third ſovereign of the dynaſty of the Seleucidæ, and on whom, in conſequence, the Egyptians beſtowed the illuſtrious title of *Euergetes*, or *the Beneficent*. Such were the ſources from which, independent of its flouriſhing commerce, the Perſian emperors drew that enormous quantity of treaſure which was neceſſary to ſuſtain the unparalleled magnificence of their courts of Suſa and Perſepolis, and which in the end was doomed to reward the military ardour of the invading Greeks.

Previouſly, however, to our following Alexander in the rapid career of his triumphs over the humbled ſovereign of Perſia, we muſt digreſs a little from our ſubject, which is properly the *bullion* of the ancients, to one not leſs important and intereſting, their *coined money*, which, according to the general judgment of medallic writers, was not in exiſtence before the conqueſt of Babylon by Cyrus; though others, on the credit of Herodotus, fix the firſt coinage in Aſia to the very early periods of the Lydian empire. In the courſe of the following ſtrictures I may poſſibly be able to produce arguments for ſuppoſing money

ney to have been coined and current in eras ſtill more remote.

## ON THE ORIGIN AND ANTIQUITY OF COINED MONEY.

THE firſt commerce of mankind was carried on without the medium of any money, ſtamped or unſtamped: it ſimply conſiſted in the barter of one commodity for another, according to the reſpective wants of the parties concerned in it. The greater or leſs urgency of the want, in general, fixed the higher or inferior price of the commodity; but the eye was often the ſole judge, and quantity the chief rule of determining. There is a curious account in Coſmas, called Indicopleuſtes, of the ancient mode of carrying on traffic between the inhabitants of Axuma, the capital of Æthiopia, and the natives of Barbaria, a region of Africa near the ſea-coaſt, where were gold mines, which will give us a tolerable idea of this primitive kind of commerce. Every other year, ſays he, a caravan of merchants, to the number of five hundred, ſets of from Axuma to traffic with the Barbarians for

for gold. They carry with them cattle, ſalt, and iron, to barter for that gold. Upon their arrival at the mines, they encamp on a particular ſpot, and expoſe their cattle, with the ſalt and iron, to the view of the natives. The Barbarians approach the mart, bringing with them ſmall ingots of gold; and, after ſurveying the articles expoſed to ſale, place on or near the animal, ſalt, or iron, which they wiſhed to purchaſe, one or more of the ingots, and then retire to a place at ſome diſtance. The proprietor of the article, if he thought the gold ſufficient, took it up and went away; and the purchaſer alſo ſecured and carried away the commodity he deſired. If the gold was not deemed ſufficient, the Axumite let it remain affixed to the article, till either more ingots were added to ſatisfy the full demand for it, or the firſt offered taken away. Their total ignorance of each other's language rendered this ſilent mode neceſſary, and the whole buſineſs terminated in five days, when the Axumite caravan departed homewards, a journey of not leſs than ſix months.* In theſe compacts, however, the eye muſt often have

* Vide Coſmas Indic. page 138, et ſeq.

been

been deceived; and the bulk of an article was not always the proper criterion of its worth, ſince ſome articles of great magnitude were of trifling value, while others of inferior bulk were in the higheſt eſtimation. It was alſo impoſſible, in many inſtances, to divide, without ſpoiling, the commodity in requeſt, according to the proportion ſuited to the mutual wants and ability of the buyer and ſeller. It became abſolutely neceſſary, therefore, to have recourſe to ſome general medium in commerce, and that medium varied according to the produce of the country in which it was carried on. In ſome it conſiſted of ſhells, in others of cocoa-nuts, in others of leather or paper; ſo that, if the reader will excuſe the joke, we ſee a *paper-currency* was eſtabliſhed in the earlieſt ages. Such was the firſt rude money, a word which explains itſelf, being derived to us from *moneta*, ſince it adviſed one of the price of an article.

The *cowries*, or white ſhells, at this day uſed as currency in India, and the ſmall Siameſe coins, in form reſembling *nuts*, are, in all probability, relics of this ancient uſage before metals were ſo generally adopted as the repreſentative ſigns of the value of articles of commerce.

commerce. It was the beauty, firmneſs, and durability, of metals, that occaſioned them to be ſo adopted, but it was many ages before they were ſtamped with any impreſſion deſcriptive of their weight or value. It was the cuſtom of the merchant, as in fact is ſtill practiſed in China, to carry a certain portion of gold or ſilver into the market, and, having previouſly furniſhed himſelf with proper inſtruments and ſcales, he cut off and weighed out, before the vender of the commodity wanted, as many pieces as were proportioned to the purchaſe of it. The great inconvenience and delay occaſioned by this mode of carrying on commerce, ſoon induced the merchant to bring with him pieces of money, already portioned out, of different weights and value, and ſtamped with the marks neceſſary to diſtinguiſh them. There is very great reaſon to believe that the earlieſt coins ſtruck were uſed both as weights and money; and indeed this circumſtance is in part proved by the very names of certain of the Greek and Roman coins: thus the Attic *mina* and the Roman *libra* equally ſignify a pound; and the στατηρ of the Greeks, ſo called from *weighing*, is deciſive as to this point. The Jewiſh ſhekel

kel was alſo a weight as well as a coin, three thouſand ſhekels, according to Arbuthnot, being equal in weight and value to one talent.* This is the oldeſt coin of which we any where read; for, it occurs in Geneſis, ch. xxiii. v. 16, and exhibits direct evidence againſt thoſe who date the firſt coinage of money ſo low as the time of Crœſus or Darius; it being there expreſſly ſaid, that *Abraham weighed to Ephron four hundred ſhekels of ſilver, current money with the merchant.*

Having conſidered the origin and high antiquity of coined money, we proceed to conſider the *ſtamp* or *impreſſion* which the firſt money bore. The primitive race of men being ſhepherds, and their wealth conſiſting in their cattle, in which Abraham is ſaid to have been rich, when, for greater convenience, metals were ſubſtituted for the commodity itſelf, it was natural for the repreſentative ſign to bear impreſſed the object which it repreſented; and thus accordingly the earlieſt coins were ſtamped with the figure of an ox or SHEEP. For proof that they actually did thus impreſs them, we can again appeal to the high autho-

* Arbuthnot on Ancient Coins, p. 39.

rity of Scripture; for there we are informed that Jacob bought a parcel *of a field for an hundred pieces of money.* Geneſis, ch. xxxiii. v. 19. The original Hebrew term, tranſlated *pieces of money*, is KESITOTH, which ſignifies LAMBS, with the figure of which the metal was doubtleſs ſtamped. We have a ſecond inſtance of this practice in the ancient Greek coin, denominated Βους, the *ox*; and we meet with a third in the old braſs coins of Rome, (whence I before obſerved the public treaſury was called *ærarium,*) ſtamped, before that city began to uſe gold and ſilver money, with the figure of a *ſheep*; whence the Latin name *pecunia. Signatum eſt notis pecudum; unde et pecunia appellata.** In proceſs of time, when empires were formed, and men crowded into cities, coins came to be impreſſed with different devices, alluſive either to the hiſtory of its founder, ſome remarkable event in the hiſtory of the nation, their accidental ſituation, or the predominant devotion of the country. Thus the ſhekel of the Jews had Aaron's rod budding, with a ſmoaking cenſer. The Tyrians had their Petræ Ambroſiæ, and ſerpen-

* Plinii Nat. Hiſt. lib. xxxiii. cap. 3.

tine

tine emblems, of which ſome curious examples may be ſeen in the fifth engraving of this volume. The Athenian coins bore impreſſed an owl, and Pallas. The maritime race, who inhabited the Peloponneſus, had a teſtudo, or ſhell, as their ſymbol; the Perſians, practiſed in the uſe of the bow, an archer, which is the conſtant device on the Darics; the Theſſalians, a horſe; the Byzantines, ſituated on the Thracian Boſphorus, a dolphin twiſted about a trident.

Although I have combated the idea of the Lydian or Perſian money being the firſt that was ever coined, I am induced, by the general and united atteſtation of ancient claſſical writers, perfectly to acquieſce in the judgment of medalliſts, that the coins of thoſe nations were the firſt ſtamped with the effigies of the reigning prince; and the priority of coining money is, with great propriety and probability, aſſigned to Crœſus, the wealthieſt monarch of Aſia, when his capital was invaded and taken by Cyrus, who forbore to plunder that rich city, on the expreſs condition, that both the monarch and the inhabitants ſhould, without reſerve, bring forth their whole amaſſed wealth, which muſt have amounted to a pro-

digious and almoſt incalculable ſum. This conqueſt gave the Perſians, who were before an indigent people, without any gold or ſilver currency, and pent up within the contracted limits of the province properly called Perſia, not only the poſſeſſion of a vaſt treaſure, but of a wide and rich territory, and laid the foundation of their future grandeur. The coined moneys of Crœſus, from the effigies of that monarch being impreſſed upon them, were called Crœſei; but, as it ſeemed improper that they ſhould continue current with that impreſſion, after the conqueſt of Crœſus and the ſubjugation of his kingdom, Darius, that is, Darius the ſon of Cyaxares; and the firſt of that name, under whom Cyrus then acted only as general-in-chief of the Perſians and Medes, though afterwards their ſovereign; that Darius, I ſay, it is conjectured, recoined the Crœſei with his own effigies, though he did not think it prudent to alter either the weight or value of a coin, then ſo generally diffuſed through Aſia as the medium of commercial tranſactions. Thus recoined, and ſtamped with his own head, they thenceforth took the name of their new maſter, and from him were called Δαρεικοι, "DARICS, and are mentioned

mentioned in Scripture, in periods poſterior to the Babyloniſh captivity, by the name of ADARKONIM. None of the Crœſei, that we know of, have reached poſterity, unleſs that very ancient gold coin, mentioned by Mr. Pinkerton, in his conciſe, but elegant and judicious, Eſſay on Medals, a coin preſenting to view "a man, kneeling, with a fiſh held out in his left hand, and a ſword, depending, in his right,"* ſhould prove to be one. It is to be ſeen, with ſeveral other old Perſian coins, in the late Dr. Hunter's capital collection; and the writer urges the poſſibility of its being one of the ſtaters of Crœſus, not only from its having the rude globoſity of early antiquity, and the indented marks of the firſt coinages, which were made by ponderous ſtrokes of the hammer, upon one ſide; but becauſe it bears the evident ſymbol of a maritime country, ſuch as Lydia was, on the other. It is of very pale gold; and is about the uſual weight of thoſe ſtaters, which was four drachmas.

When afterwards the ſame Darius, by the valour of Cyrus, became poſſeſſed of Ba-

* Pinkerton, vol. i. p. 286.

bylon, and found there that immenſe quantity of bullion, which has been before deſcribed, he cauſed the greateſt part of it to be melted down and coined into Darics. On theſe coins, the impreſſion, on one ſide, was an archer, clothed in a long Perſian tunic, and crowned with a ſpiked crown, with a bow graſped by his left hand, and an arrow in his right: on the other ſide, the effigies of the monarch himſelf. The pleaſantry of Ageſilaus, at a ſucceeding period, on the ſubject of theſe Darics, is well known; who, when compelled to retire from an invaſion of Perſia, by the force of Perſian gold, that had bribed Sparta over to its intereſt, declared he had been defeated by thirty thouſand *archers*. Very few of theſe coins have deſcended to our times; becauſe the very ſame reaſons which operated on the mind of Darius, to convert the Lydian into Perſian coins, afterwards incited Alexander to melt down the Darics for the coinage that diſtinguiſhed the commencement of his new and ſtill greater empire. Of the magnitude, however, of this famous coinage by Darius, we may form ſome idea, from the great number already ſtated to have been in the poſſeſſion of one man, I mean Pythias,

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ſo often alluded to, who offered his ſovereign, towards carrying on the Grecian war, no leſs a ſum than four millions of theſe Darics; and what vaſt additional ſums ſtill remained in the royal coffers will ſhortly be evident to the reader, when I return to the account of the plunder of the Perſian palaces and temples by the Macedonian invader. All the real Darics are of extremely pale gold, of the pureſt kind known in thoſe days, when the art of refining metals was not advanced to any high degree of perfection; I ſay all the *real Darics*, for the ſilver coins that generally paſs under that name, as bearing ſimilar impreſſions, though Perſian, are of a far later coinage. The Darics, according to Dr. Bernard, weighed two grains more than one of our guineas; but, containing far leſs alloy, may be conſidered as worth twenty-five ſhillings Engliſh.*

The next celebrated coin in antiquity is the Philippi of gold, ſtamped with the effigies of the father of Alexander the Great, when, as was before related, he conquered Crenides, on the confines of Thrace, and conferred his

* Dr. Bernard de Ponderibus, p. 171.

name on the gold coin, or χρυσος, of the Greeks; it was a didrachm, of the value of twenty ſilver drachmæ, and, allowing for the difference in the value of gold in thoſe times and the preſent, may be intrinſically worth one pound of our money. Alexander, content with the full tide of glory which he was convinced would attend his name and actions in future ages, ſeems to have declined the celebrity which ariſes from multiplying the regal effigies upon coins; and, ſoon after his exaltation to the throne of Macedon, forbad the impreſſion of his own portrait to be uſed at the mint. This was ſo ſtrictly obſerved, that we have only one ſmall ſilver coin, a hemidrachm, ſtruck during his whole reign, (which indeed was but ſhort,) bearing his effigies, and that is an unique in Dr. Hunter's collection. It exhibits a very juvenile aſpect; and the reverſe is a man on horſeback, the uſual ornament of Macedonian coins. His gold coins exhibit, on one ſide, a head of Minerva; and, on the other, a Victory, ſtanding: his ſilver, a head of young Hercules, and the reverſe, Jupiter ſitting: — a collection of ſymbols that doubtleſs flattered the pride of the victorious ſon of Jove, far more than the diffuſion of the impreſſion

preſſion of the head of a mere man. What pride or caprice, however, prevented being done by himſelf, was abundantly accompliſhed by his ſucceſſors at Macedon and his admirers elſewhere; ſo that poſterity are in no want of genuine ſimilitudes of that wonderful man. The great generals, who partitioned out among themſelves his mighty empire, happily did not follow his example; and, in the ſeries of their reſpective coins, the medalliſt finds an aſtoniſhing and delightful proof of the perfection, in this line, to which the Grecian artiſts gradually arrived. It is beyond my purpoſe, which was only to preſent the reader with a general view of the ſubject of ancient coins, to enter farther into the examination of their merits and hiſtory. The medallic writers are numerous, and to the Engliſh reader, who may chooſe to proceed more largely in the inveſtigation, Mr. Pinkerton's book will prove a very uſeful guide. — It is neceſſary that we now return to ſurvey the utter ſubverſion of the Perſian empire, and the plunder of all its immenſe treaſures, by a comparative handful of determined Greek ſoldiers. I ſhall, firſt, faithfully ſketch out the picture of that grandeur and thoſe treaſures:

I ſhall

I ſhall then, to uſe the language of the medallift, exhibit the *reverſe*:—a dreadful reverſe! unequalled in the annals of Aſia and the hiſtory of man.

Never was there a more ſudden change effected in the manners of a nation than that which took place in Perſia, after the conqueſt of Babylon. The honourable indigence, and the ſtrict regimen and laborious exerciſes, in which from infancy they had been trained, were now ſucceeded by an oſtentatious magnificence, a luxurious diet, and an indolent effeminacy. With the wealth, they caught the habits of the Lydians, and wallowed in all that unbounded voluptuouſneſs for which the former are branded in the page of hiſtory. During the life of Cyrus, indeed, his example and authority kept up in the army ſome remains of the ancient diſcipline; but the princes and nobles delighted rather to follow the example of Crœſus, and were plunged in exceſſes of every kind. The ſucceſſors of Cyrus on the throne of Perſia ſeemed to think the dignity of that throne was better ſupported by ſplendor than virtue, and aimed to ſecure the abject obedience of their ſubjects, by dazzling them with a glory that ſeemed more than

than human; ſo devoted indeed were they to the ſhameleſs gratification, at any price, of their licentious and ſtimulated appetites, and ſo far had they exhauſted every ſource of known terreſtrial enjoyment, that one of them, it is well known, was not aſhamed, by a public edict, to offer a ſplendid reward to any perſon who ſhould invent a new pleaſure.

Ancient writers ſpeak with rapture of the beauty of imperial Suſa, and the magnificence of its ſumptuous palace, ſo highly diſtinguiſhed, as to have been the reſidence, during three months of the year, that is, during the ſpring ſeaſon, of the great Shah-in-Shah, as Ecbatana was, during the ſummer. The walls and ceilings of this palace were overlaid with gold, ivory, and amber, exhibiting the nobleſt deſigns, wrought in the moſt exquiſite taſte. Its lofty throne of pure gold was raiſed on pillars refulgent with jewels of the richeſt luſtre. The monarch's bed, alſo of pure gold, we have already noticed, as ſhaded with the golden plane-tree and vine preſented by Pythias, on whoſe branches hung cluſters of emeralds and rubies. He repoſed his head on a caſket containing five thouſand talents of gold, which was called *the king's bolſter*; and his feet reſted on another,

containing

containing three thouſand talents of the ſame metal. Every province of his vaſt empire daily furniſhed one diſh, loaded with the richeſt rarities produced in it. He drank no water, but the pure cold wave of the Choaſpes, carried with him, in ſilver veſſels, whitherſoever he went. His bread was made of the fineſt wheat of Phrygia; Egypt ſupplied him with ſalt; the rich high-flavoured wines of Damaſcus alone ſparkled in his cup; the ſofteſt, ſweeteſt, melodies ſoothed him during the banquet; and the lovelieſt women of Aſia beguiled his hours of domeſtic retirement. When he marched to battle, the pomp of the proceſſion was to the laſt degree ſplendid and ſolemn; and has been minutely deſcribed by Herodotus, Arrian, and Curtius; of whoſe various relations the following is the reſult.

It commenced the moment the ſun appeared above the horizon. At that inſtant, a trumpet, ſounding from the king's pavilion, proclaimed the appearance of its beam, and a golden image of its orb, incloſed in a circle of cryſtal, was diſplayed on high in the front of that pavilion. The Perſian banner, which was a golden eagle, the eagle of the ſun, with its wings expanded, being alſo elevated, a body

of

of Magi carrying on ſilver altars the ſacred and eternal fire, believed to have deſcended from heaven, advanced firſt. Then followed another band of Magi, chanting hymns in honour of the ſun; and 365 youths, to repreſent the number of the days of the reformed year, clothed in flame-coloured veſts, and bearing a golden rod, the ſymbol of his ray. After theſe, marched a large body of horſe and men, bearing ſpears with their points downward. Ten conſecrated horſes, of ſurpaſſing magnitude, bred on the Niſæan plains, and capariſoned with furniture that glittered all over with gold and gems, preceded the chariot of the ſun, (for ſuch it was, though called by Herodotus that of Jupiter,) empty, and drawn by eight white horſes, the equeries attending them clothed in white veſts, and alſo bearing in their hands golden wands. Next came the Perſian band, called *immortal*, ten thouſand in number, all wearing collars of pure gold, and arrayed in robes of gold tiſſue. Next came the male relations of the ſovereign, habited in purple veſts, fringed with precious ſtones and pearl. The king followed immediately after, in a chariot drawn by Niſæan horſes, a living mine of gold and rubies,

and

and darting from his own perſon a glory ſcarcely leſs reſplendent than that of the ſun, whom he repreſented. He appeared ſeated on a throne, elevated above the chariot that bore him, and ſuſtained by coloſſal figures of the Genii of the Perſian mythology, caſt in pure gold. The chariot was of gold, and from the centre of the beam, that glittered with jewels, roſe two ſtatues of pure gold, each a cubit in height, the one repreſenting PEACE, the other WAR; over whoſe heads a golden eagle, the banner of Perſia, ſpread its wings, as if to ſanction the choice of the nations, whether hoſtile or pacific. Two thouſand choſen horſe, the king's body-guard, followed the royal car; ſucceeded by twenty thouſand foot, armed with javelins, decked with pomegranates of gold and ſilver. Ten thouſand horſe brought up the rear of the army of native Perſians. The reſt of the innumerable hoſt followed at a diſtance, in ſeparate diviſions, according to the nations which they reſpectively repreſented.

The citadel of Suſa is ſaid to have been the great treaſure-houſe of the kingdom: in it the ancient records of the Perſian empire, from its foundation, were preſerved. We are informed,

informed, by Diodorus, that Alexander carried away from this plundered capital no leſs than nine thouſand talents of coined gold, and of gold and ſilver bullion forty thouſand talents.* It muſt, however, have been in the more ancient periods of the empire that Suſa was the chief treaſury; becauſe, great as this ſum appears, it is comparatively trifling to what, according to the ſame author, that inſatiable plunderer of the wealth of Aſia found at Perſepolis, which amounted to ſuch an enormous ſum, that, beſides three thouſand camels which were loaded with it, all the adjoining countries were drained of their mules, aſſes, and other beaſts of burthen, to convey it away from a city, on which he wreaked his particular and unrelenting vengeance, in return for the impolitic burning of the Grecian temples by Xerxes.† The total aggregate, in bullion, obtained at Perſepolis, Diodorus ſtates at one hundred and twenty thouſand talents of gold, independent of the precious gems, the coſtly furniture, the veſſels of chryſtal and agate, the veſts of Tyrian purple and gold

* Diodorus Siculus, lib. xviii. cap. 66.

† Ibid. lib. xvii. p. 63.

embroidery,

embroidery, found in profuſion in the houſes of the Perſian nobles and merchants. At the taking of Damaſcus, after the battle of Iſſus, he found in the royal coffers two thouſand ſix hundred talents, in coined money, and five hundred in bullion, and with the other treaſures, taken in that wealthy city, loaded ſeven thouſand mules. Ten thouſand talents, at one time, and thirty thouſand at another, were the ſums offered by Darius to Alexander, as the ranſom of his captive wife and daughters. The battle of Arbela put him in poſſeſſion of all the coſtly utenſils and ſplendid equipages of Darius, with four thouſand talents in money. In Paſargada he found ſix thouſand talents; and, in the royal city of Ecbatana, according to Strabo,* no leſs than one hundred and eighty thouſand talents.

Of theſe immenſe ſums heaped up together by Alexander in his rapid conqueſt of Perſia, he was by no means ſparing in the uſe; his largeſſes to his ſoldiers at different times were great beyond calculation; and, in his ſumptuous and repeated banquets, he aimed to diſplay the magnificence rather of a god than a man.

* Strabonis Geograph. lib. xv. p. 741.

Towards

Towards his friends and favourites, too, he manifeſted his liberality in a manner equally unparalleled, ſince he preſented Ariſtotle, his preceptor, for his natural hiſtory of animals, with no leſs a ſum than eight hundred talents, or one hundred and fifty-five thouſand pounds;* and, on the funeral only of his beloved Hephæſtion, he expended twelve thouſand talents, conſiderably above two millions ſterling.† Having tranſported all theſe myriads to Babylon, which city there is every reaſon to think he meant to make the metropolis of his new empire, THE WORLD, as Alexandria was to be the ſtaple of its commerce, this mighty conqueror there periſhed, the victim of intemperance. Not content with the laurels obtained by the ſubjugation of Aſia, and the honour of having rewarded Ariſtotle, the invincible Alexander muſt raviſh from his comrades the chaplet of the bacchanal; and the capacious Herculean goblet of two CHOÆ,‡ conſigned him in the bloom of life and glory to that grave into which his cruel ambition had re-

* Athenæus, lib. xii. † Diod. Sic. lib. xvii.

‡ The χοῦς was an Athenian meaſure, holding ſeven pints, frequently uſed at feſtivals, and drank off by way of bravado.

cently precipitated the unfortunate Darius. After his deceaſe, independent of gold and ſilver ſtatues, vaſes, and other ornamental furniture of the palace of Babylon, in the treaſury of that city were found one hundred thouſand talents, a ſum exceeding nineteen millions ſterling, but which will excite no wonder in the reader's mind, when he is informed, from Juſtin, that the total amount of the tribute annually ariſing from his conqueſt of Perſia, India, and the other empires of Aſia and Africa, amounted to three hundred thouſand talents, or upwards of fifty-eight millions of our money.* What became of this enormous treaſure, the greateſt the ſun ever ſhone upon, will preſently be unfolded, when we diſplay new empires burſting from the aſhes of this coſtly phœnix, conſumed by its own blaze, and exhibit Egypt, Syria, and Macedon, glittering in the ſpoils of the Higher Aſia. But before I introduce my readers once more to the ſplendid courts of the Ptolemies, the Seleucidæ, and the new Macedonian dynaſty, ſome important collateral events muſt be recapi-

* Juſtin Hiſt. lib. xiii. p. 147.

tulated,

tulated, and the field of the gorgeous India more minutely explored.

In enumerating the ancient mines, I ought not to have omitted more particularly mentioning, as not the leaſt celebrated, the ſilver mines of Attica and the golden mines of Thrace. The annual produce of the mines of Sunium I do not find preciſely ſtated, though that it was very conſiderable may be collected from this circumſtance, that, whereas in Aſia, according to Herodotus, the proportion of gold to ſilver was as one to thirteen; at Athens, according to Plato, it was but as one to twelve.* Of the produce of the Thracian mines, re-opened, after the conqueſt of Thrace, by Philip, king of Macedon, we can ſtate, with certainty, from Diodorus, that it amounted to one thouſand gold talents annually, or near three millions of our money, which went, by hereditary claim, additionally to ſwell the treaſures of the great Alexander.† The principal hoards, however, of treaſure, both in bullion and coined money, among the Greeks, we know to have been in their temples, which

* See Herodotus, lib. iii. and Plato in Dialog. *Hipparchus*.

† Diodorus Siculus, lib. iii. p. 249.

were crowded with preſents of immenſe value, brought by the ſuperſtitious from every part of Greece. Theſe temples were conſidered as national banks, and the prieſts officiated as bankers, not always indeed the moſt honeſt; as was once proved at Athens, where the ſtate-treaſurers, having expended or embezzled the public money, had the audacity to ſet fire to that part of the temple of Minerva where the treaſure was contained, by which ſacrilegious act that magnificent fane was near being wholly conſumed. Their purpoſe, however, was fully anſwered, ſince the regiſters of the temple were reported to have periſhed with the treaſures, and all reſponſibility precluded.

The temple, juſt mentioned, the ſuperb fane of Jupiter Olympius, at Elis, and that of Apollo, at Delphi, were the principal of thoſe ſacred depoſitaries. The prieſts, at all times, concealed the total ſum of the treaſures lodged in them with too much caution for us to know the amount, yet, when the Phocenſes, urged to deſpair by the exactions of the Thebans, ſeized on the treaſures of Delphi, they amounted to ten thouſand talents, above two millions two hundred and fifty thouſand pounds

pounds ſterling;* and probably that but a ſmall portion of what holy perfidy had previouſly ſecured. Thoſe depoſited at the great temple of Epheſus, conſidered through all ages as inviolable, probably far exceeded thoſe of the three laſt-mentioned. After all, whatever credit may be due to the piety of mankind in devoting their gold and ſilver to the ſervice of the deity, it was extremely impolitic to make their temples, as was the cuſtom through all antiquity, the receptacles of ſuch unbounded wealth; ſince it ſerved only to ſpirit up every deſperate invader of Aſia to acts of the moſt nefarious plunder and ſacrilege, as was dreadfully and repeatedly experienced by the miſerable race of Paleſtine. Violent and reiterated as were the outrages committed in the Holy Land in the ſucceſſive irruptions of their rapacious neighbours, they were by no means ſo extenſive and ruinous as the deſolation which the ſanguinary fury of Mahommedan ſuperſtition, hurled with its waſteful hand over the fertile provinces of Hindoſtan, and through her auguſt pagodas; pagodas overflowing for

* Diodorus Siculus, lib. xvi. cap. 76.

ages with the accumulated wealth of the whole weſtern world.

I have already ſhewn, that it was to the ſhores of India that the great current of the treaſures in gold and ſilver, produced by the mines of Spain, flowed, to be there ſwallowed up in a vortex that never regurgitated the ſhining ſpoil. Imagination is ſcarcely able to conceive the magnitude of the amount, in bullion and coined money, amaſſed during ſo many centuries in that ſecluded region of Aſia; and the hiſtorians of Mahmud, of Gazna, who principally enjoyed the plunder of it, are at a loſs for words to deſcribe the aſtoniſhment and exultation of that prince, whoſe mind equally felt the goad of avarice and ambition, at the ſight of it. They endeavour to impreſs us with ſome faint idea of it, by aſſerting, in their hyperbolical way, that he there ſaw a tree of pure gold, of an enormous ſize, growing naturally out of the ſoil;* which, though doubtleſs to be underſtood allegorically, may approach nearer the truth than ſome other of their romantic ſtrains, ſince, to imitate vines and other trees in gold

* See Orme's Hindoſtan, vol. i. p. 9.

was

was an ancient and very favourite cuſtom of the Indian metallurgiſts; and I have already, in former parts of this work, given two very appoſite inſtances of it. The firſt is from Curtius, who, deſcribing the palace of the luxurious monarch Muſicanus, whoſe domain was ſituated towards the mouth of the Indus, that anciently rolled down gold from its mountainous ſource, particularly mentions the golden vines that twined around each of the columns that ſuſtained the portico of his palace, in whoſe ſpreading branches were ſeen interſperſed birds of ſilver, and others of various coloured enamel, to reſemble nature. The ſecond was the ſplendid gallery, ſeen by Tavernier, in the palace of Agra, which was partly covered with a kind of lattice work of gold, over which the tendrils of a golden vine diffuſed themſelves, bearing fruit, of emerald, rubies, and other precious ſtones, reſembling grapes in their different advances towards maturity; but this magnificent project he was obliged to drop, as, according to that traveller, it would have taken up more riches than all the world could furniſh. The ſame device I have had repeated occaſion to mention as much in eſteem at the Perſian court.

In evidence of their ſuperabundant wealth in bullion may be enumerated the expiatory oblations for certain offences, ordained by the Hindoo code, to be made in that metal by the ancient rajahs, and which, in fact, were frequently made to atone for, or to avert, evil; as, for inſtance, the weight of the perſon preſenting the offering, in gold or ſilver; TREES AND VINES OF GOLD; golden elephants; golden horſes and cows; and even chariots, drawn by horſes and elephants, entirely of gold.*

The principal uſe, to which the Indians ſeem to have applied the immenſe quantity of bullion, from age to age imported into their empire, was, to melt it down into ſtatues of their deities; if, indeed, by that title we may denominate the perſonified attributes of the Almighty and the elements of nature. Their pagodas were anciently crowded with theſe golden and ſilver ſtatues; they thought any inferior metal muſt degrade the Divinity, and the ſacred emanations that iſſued from the Source of all Being. Every houſe, too, was crowded with the ſtatues of their anceſtors, caſt in gold and ſilver; thoſe anceſtors that

* Ayeen Akbery, vol. iii. p. 229.

were

were exalted to the ſtars for their piety or valour. This cuſtom of erecting golden ſtatues, in their houſes and temples, to brave and virtuous men, ſeems to have remained long after the time of Alexander; for, we are told, by the ſame Apollonius, that he ſaw in India two golden ſtatues of that hero, and two of braſs, repreſenting Porus, the conquered Porus, and therefore of inferior metal.* The very altar of the temple was of maſſy gold; the incenſe flamed in cenſers of gold; and golden chalices and vaſes bore the honey, the oil, the wine, and the fruits, offered at their blameleſs ſacrifice. I have already mentioned the temple of the Sun, or rather of Auruna, the day-ſtar, deſcribed by Philoſtratus, whoſe lofty walls of porphyry were internally covered with broad plates of gold, ſculptured in rays, that, diverging every way, dazzled the beholder, while the radiant image of the adored deity burned in gems of infinite variety and unequalled beauty on the ſpangled floor. The floor, alſo, of the great temple of Naugracut, in the northern mountains, even ſo late in time as the viſit of Mandeſloe,

* Philoſtrat. lib. ii. cap. 11.

We

we have ſeen, was covered with plates of gold; and thus the Hindoo, in his purer devotion, trampled upon the god of half mankind. In the proceſſions, alſo, made in honour of their idols, the utmoſt magnificence prevailed; they then brought forth all the wealth of the temple, and every order of people ſtrove to outvie each other in diſplaying their riches and adding to the pomp. The elephants marched firſt, richly decorated with gold and ſilver ornaments, ſtudded with precious ſtones; chariots, overlaid with thoſe metals, and loaded with them in ingots, advanced next; then followed the ſacred ſteers, coupled together with yokes of gold, and a train of the nobleſt and moſt beautiful beaſts of the foreſt, by nature fierce and ſanguinary, but rendered mild and tractable by the ſkill of man; an immenſe multitude of prieſts carrying veſſels, plates, diſhes, and other utenſils, all of gold, adorned with diamonds, rubies, and ſapphires, for the ſumptuous feaſt of which the gods were to partake, brought up the rear.* During all this time the air was rent with the ſound of various inſtruments, martial and

* Strabo, lib. xv. p. 710.

feſtive;

feſtive; and the dancing girls diſplayed, in their ſumptuous apparel, the wealth of whole provinces exhauſted to decorate beauty devoted to religion.

If the zeal of the Arabians to make proſelytes, added to their inſatiable avarice, had not burſt upon India in ſuch a torrent of wide-waſting deſtruction, ſo little did the Greeks and Romans know of the internal provinces of India, we ſhould probably to this day have remained in ignorance of the riches with which their palaces and their temples overflowed. Their native monarchs, grey with age, and venerable for wiſdom, would ſtill have poiſed the equal balance, and ſtill wielded the righteous ſabre. But, when the creſcent of Mohammed roſe to ſhed its baleful luſtre on the banks of the Seendhu, the order and harmony, immemorially eſtabliſhed throughout that vaſt empire, by the profound policy of its legiſlator, inſtantly fled; all the ſanctities of religion, and all the bulwarks of ancient law, were alike trampled upon; the fortitude of the rajah availed him not; and the prieſt in vain thundered forth his anathemas. The tiara was rudely torn from the head of the former, and the golden ſlumber of the latter

was

was for ever broken. No palliation, no compromiſe, was admitted. The bigotted fury of the firſt invaders of India urged them to exterminate rather than ſubdue; the tithe would not content them; their mercileſs graſp ſeized the whole ſpoil. The weſtern provinces firſt felt that fury; and, in my account of Lahore, in the Geographical Diſſertation, I had occaſion to intimate the enormous treaſure found only on the perſon of the rajah of that province; who, when taken captive, had around his neck ſixteen ſtrings of jewels, each of which was valued at above a hundred and eighty thouſand rupees, and the whole at three hundred and twenty thouſand pounds ſterling; a ſum, however, comparatively trifling, compared with that of which the ſultan of Gazna afterwards became maſter in his irruption into the ſame province, and which Mirkhond ſtates at ſeven millions of coin in gold, ſeven hundred maunds of gold in ingots, together with an ineſtimable quantity of pearls and precious ſtones.* The maund is a Perſian weight, varying in different parts of the Eaſt, but never eſtimated below forty pounds.

* Mirkhond apud Texeira, p. 280.

Let

Let us attend this valiant marauder on another or two of his plundering excurſions into Hindoſtan. At the holy fane of Kreeſhna, at Mathura, he found five great idols of pure gold, with rubies for eyes of immenſe value. He found alſo there a hundred idols of ſilver; which, being melted down, loaded as many camels with bullion; and it will be remembered that the uſual load which this powerful animal carries is from 750 to 1200 lb. weight, varying according to its magnitude. At the great temple of Sumnaut he found many thouſand of gold and ſilver idols of ſmaller magnitude, a chain of ſolid gold, which was ſuſpended from the roof, and weighed forty maunds, beſides an ineſtimable hoard of jewels of the firſt water.* This prince, a day or two before his death, gave orders for the whole wealth of his treaſury to be placed before him; and, having for ſome time, from his throne, feaſted his eyes upon the innumerable ſacks of gold, and caſkets of precious ſtones, burſt into tears; poſſibly from anguiſh at the thought of leaving ſo much treaſure behind,

* See Herbelot on the article Mahmud, of Gazna; and Feriſhta; pages 73 and 86.

but,

but, far more probably, from the cutting reflection of having obtained it, from the plundered Hindoos, by a ſeries of the moſt atrocious murders, under the ſounding and deluſive name of conqueſt.

Aſtoniſhing as theſe accounts of the wealth, found by the firſt conquerors of India, may appear, yet, when we conſider that this is the accumulated undiſturbed wealth of a great empire, that had, for nearly three thouſand years, been abſorbing into its boſom the gold and ſilver of the whole world, they will not be found abſolutely incredible, though poſſibly, in ſome degree, exaggerated by the pen of Eaſtern hiſtorians. It ſhould alſo be remembered, that not only the whole weſtern world had been thus long tributary to India for her gems, linen, and ſpices, but that the mines of the Aurea Cherſoneſus, generally thought to be Siam; thoſe of Japan, productive of the pureſt ore; thoſe of Pegu, Sumatra, and Borneo, have immemorially, through one channel or another, ſupplied the markets of India with theſe precious metals; and, when once imported either into India or China, we know that expreſs and ſevere laws forbade its exportation, except when blended and incorporated

corporated with the brocades and other rich manufactures of thoſe countries. In direct proof, however, that the above ſplendid details do by no means originate merely in the fanciful brain of the Aſiatic biographers of the Gaznavide ſovereign, may be adduced the almoſt-infinite treaſures obtained by Gengis, Timur, Baber, Nadir, and all the other ſucceſſive plunderers of Hindoſtan, down to the ſordid wretch, who, not many years ſince, tore down the plates of ſilver from the ceiling of the Divan of Delhi, broke up the floors of that palace for concealed treaſures, and after having meanly ſeized on and ſold the robes of the ſeraglio, endeavoured to extort, by the moſt excrutiating pangs of famine, from the humbled emperor and his attendants, that wealth which the repeated ravage of his limited domain did not permit the laſt of the race of Timur to poſſeſs. The riches obtained in theſe invaſions ſhall be diſcuſſed in the ſucceeding Sections, in which I ſhall recount the wealth of modern times, and the ſources of it, and compare it with that of the ancient world. I ſhall commence with an hiſtoric view of the ſucceſſors of the hero of Macedon, who, flushed with

conqueſt,

conqueſt, and loaded with the ſpoils of plundered Aſia, are urging their triumphant progreſs to the reſpective kingdoms, which they have mutually, but faithleſſly, ſtipulated to make the limits of their ambition.

SEC.

## SECTION II.

*The Author, in this Section, returns to the Conſideration of the Wealth obtained by* ALEXANDER, *and its Diſperſion by his Succeſſors, the* PTOLEMIES *of* EGYPT, *the* SELEUCIDÆ *of* SYRIA, *and the* MACEDONIAN *Sovereigns.* — *A Deſcription, from* ATHENÆUS, *of a magnificent Feſtival, of the Phallic Kind, celebrated at* ALEXANDRIA *in* EGYPT, *in which a very large Portion of the Golden and Silver Spoils of* BABYLON *was diſplayed.* — *A Second Deſcription, from the ſame Writer, of the ſplendid Pomp and Proceſſion ſolemnized by* ANTIOCHUS EPIPHANES, *at* DAPHNE, *in* SYRIA; *and exhibiting a ſtill farther Diſplay of the plundered Treaſures of the* PERSIAN *Empire.* — *A Third, from* PLUTARCH, *of the Riches found in the Palace of* PERSEUS,

*the laſt King of* MACEDON, *and diſplayed to the* ROMAN *People during the Triumph of* PAULUS ÆMILIUS, *the Conqueror of* MACEDONIA. — *The Whole accumulated Treaſures of* ASIA *ſtated to have finally centred in* ROME, *and Inſtances enumerated of the aſtoniſhing Wealth poſſeſſed by ſome of the private Citizens of that Republic. — Of thoſe Treaſures, a conſiderable Part diſſipated by their unbounded Profligacy; a ſtill more conſiderable Portion fell to the Lot of the* GOTHS, VANDALS, *and other barbarous Nations who plundered* ROME; *but by far the moſt conſiderable Portion was buried, during the Times of Tyranny and Turbulence, that marked the Reigns of the latter Emperors, in that Earth from which it originally came.*

THE extent of the dominion and the magnitude of the ſpoil obtained by Alexander, exciting not leſs the ambition than the avarice of his captains, for a long time engaged them in the moſt unrelenting hoſtilities, and became the occaſion of deluging Aſia with new torrents of blood. The final reſult of thoſe conteſts

conteſts for wealth and empire, it is well known, was the firm eſtabliſhment of Ptolemy on the throne of Egypt and its vaſt dependencies; Seleucus, on that of Syria, with all thoſe rich provinces of Aſia that formed the Perſian empire; Caſſander, on the throne of Macedon and Greece; and Lyſimachus on that of Thrace, Bythinia, and all the remaining territories won by the ſword of Alexander. It may, indeed, be reaſonably ſuppoſed, that no inconſiderable ſhare of the *coined money* in the treaſury of Babylon was diſſipated in the courſe of the violent ſtruggles of the contending parties, but ſtill the great maſs of bullion remained unviolated; and each competitor carried away to his reſpective dominions ſuch a proportion of gold and ſilver vaſes, ſtatues, and other ornamental furniture of the ſuperb palace of Babylon, as might be mutually agreed on. But Ptolemy, the moſt powerful, from intereſt, talents, and kindred, (for, he is with great reaſon ſuppoſed to have been the brother of Alexander,) ſeems to have obtained the largeſt ſhare; ſince, without it, he never could have executed thoſe ſtupendous projects, kept up that magnificent court and

thoſe expenſive eſtabliſhments, and maintained thoſe vaſt armies and fleets, whoſe number we have before recapitulated. One particular project, indeed, that of reviving the trade of Egypt with Arabia, India, and the higher Æthiopia, could not fail of being attended with circumſtances the moſt auſpicious to his revenues; and bringing ſuch an influx of wealth into that kingdom as it had never witneſſed under the moſt potent of her ancient ſovereigns. Near the cloſe of a long and glorious, though, during its early periods, turbulent, reign, this wiſe prince, to prevent the court-cabals and jealous contentions uſual at the deceaſe of great Eaſtern monarchs, reſolved to aſſociate with himſelf in the imperial dignity his ſon Ptolemy Philadelphus; and it was at the grand proceſſion, which took place at the coronation of that auguſt prince, that all the wealth of Egypt in theſe articles was diſplayed. The particulars of this pompous feſtival are related by Athenæus with a minuteneſs which there is no occaſion for me to imitate, my object being, principally, to preſent in order before the reader's view the coſtly remains of the Aſſyrian and Perſian grandeur, and I may alſo add that of the

the ancient Pharaohs; not only that portion of it which was plundered by Cambyſes, but, in all probability, much of that which the brave, but unfortunate, Nectanebus, the laſt of her proud dynaſty of native ſovereigns, carried away with him into Æthiopia, when he fled before the ravages of Darius Ochus; and which might have floated back to Alexandria in the reflux of the revived commerce of Egypt with the empire beyond the cataracts.

A ſeries of tents, the hangings of which were fabricated of the richeſt materials which the looms of the Eaſt could furniſh, the gold and ſilver brocades of Perſia, the fine linen of Egypt, and the delicate cottons of India, compoſed the royal pavilion. It was adorned with numerous ſtatues, ſculptures, and emblematic paintings, alluſive to the grand occaſion; the elaborate work of the moſt exquiſite artiſts that Greece could produce. The pillars that ſuſtained the pavilion were of maſſy ſilver, and ſhields of gold, ſuſpended on high in every part of it, proclaimed at once the magificent and warlike genius of the ſovereign of Egypt.

An artificial cavern, ſunk in a remote part of the pavilion, was aſſigned to the comic, tragic, and ſatyric, actors, who there feaſted upon gold plate and drank out of gold cups, and who, occaſionally iſſuing from their receſs, alternately entertained the company with the diſplay of their reſpective talents. On the roof glittered two golden eagles, the ancient banner of Perſia, and probably from that nation adopted by their victors; each eagle fifteen cubits in height. Along the ſides of the pavilion were ranged one hundred ſofas, adorned with rich embroidered coverlets, and of which all the ſolid parts were gold; the feet having the form of ſphinxes. Before each of theſe ſofas were placed golden tripods, or footſtools, two for each; while on one ſide of the ſofas were placed one hundred gold diſhes, with golden phials for lavation; and on the other as many golden veſſels, richly ſet with jewels. The whole value of the plate thus exhibited to view, our author informs us, amounted to ten thouſand talents.

No adequate conception can be formed of the grandeur and brilliancy of the proceſſion. Numerous victories, with expanded wings of gold,

gold, were firſt borne along. Next, followed a double altar, ſix cubits in height, wreathed with foliage of gold, decorated with golden ornaments and inſtruments of ſacrifice, and bound round with a crown of gold. Then came one hundred and twenty youths, each carrying a vaſe of gold; and theſe were ſucceeded by forty ſatyrs, wearing on their heads, and bearing alſo in their hands, crowns of gold. Two Sileni, each bearing a gold caduceus, and between them a man of gigantic ſtature carrying alſo a proportional caduceus of the ſame metal. Theſe were introductory to the peculiar deity upon whoſe ſports they attended, Bacchus, to whoſe *numen* the pomp was devoted. And now were borne aloft two mighty vaſes of gold, called Θυμιατηρια, or medicine of the ſoul, with a ſquare altar of ſolid gold, ſacred to that deity. Another band of ſatyrs, carrying vaſes of gold, immediately preceded Bacchus himſelf, a figure ten cubits in height, enthroned in a car drawn by a hundred and eighty men; before him ſtood a vaſt Laconic goblet, big enough to hold ten meretræ; a meaſure of a hundred pound weight. This was followed by a tripod of gold, upon which there was

placed another Θυμιατηριον, and two gold phials preceded Nyſa, the nurſe of Bacchus, a figure of the height of eight cubits, wearing a gold crown, and holding in her hand a gold phial. She was followed by a hundred and twenty Sileni and ſatyrs, ſome of whom carried diſhes, others phials, others capacious *Therilcæan* cups of gold. Such was the order and march of thoſe who were to diſplay the treaſures in *golden* ornaments and utenſils of the ſumptuous court of the Ptolemies.—Thoſe fabricated of ſilver were not leſs numerous and ſtupendous, and are thus detailed by Athenæus.

Firſt was exhibited a *crater* of that metal of ſuch enormous magnitude, that the car in which it was placed was obliged to be drawn along by ſix hundred men; it was ſo ample as to contain ſix hundred meretræ; and the margin was enriched with a crown of gold, ſet with all manner of precious ſtones. It was followed by two other ſilver vaſes of inferior dimenſions, but ſtill vaſt; for they were twelve cubits in breadth, and ſix cubits in height. Then ſlowly moved in order, before the whole aſſembled city of Alexandria, gazing in profound aſtoniſhment,

the

the under-mentioned coſtly articles: ten huge tubs of ſilver; ſixteen ſilver flaggons, the largeſt of which contained thirty meretræ, and the leaſt five; ten ſilver caldrons; twenty-four vaſes, each with two handles, on five ſalvers; two ſilver preſſes, containing twenty-four goblets; a table of maſſy ſilver, of the height of ten cubits; and thirty other tables ſix cubits high; four tripods of prodigious magnitude, the largeſt ſixteen cubits in circumference; the three others, of inferior magnitude, were adorned in the middle with precious ſtones; twenty-four *Delphic* tripods of ſilver, ſtill leſs, and of a different faſhion; twenty-ſix pitchers for water; ſixteen *Panathænaic* amphoræ; and a hundred and ſixty other ſilver veſſels of all ſizes, of which, however, the leaſt held not leſs than two meretræ; that is two hundred pounds weight. Surely, Mexico itſelf, that mine of ſilver, when CORTES made his triumphal entry into that capital, could ſcarcely have exhibited a grander ſpectacle. But the torrent of wealth, poured forth from the new into the old world, will form a ſubject of future conſideration. Let us attend (for, we have not half gone through this magnificent pro-

ceſſion)

ceſſion) to the remaining articles of regal grandeur diſplayed at this proud feſtival in Egypt, the ſpoils of the plundered temples and palaces of Perſia, and probably of many of thoſe which, on the Panjab and on the rich ſhore of the Indus, experienced the fury of Macedonian avarice. The veſſels already deſcribed, from their enormous dimenſions, ſeem to have been appropriated to the ſervice of the temple ſolely, and fully verify all that was ſaid above, concerning the riches of thoſe of Belus and the Dea Syria; the infinity of vaſes, *all of gold*, to be now enumerated, probably formed part of the ſplendid furniture of the palaces of Suſa, Perſepolis, and the great Babylon.

This part of the proceſſion commenced with the expoſition of four *Laconic* and two *Corinthian* vaſes of the fineſt gold, each of which held eight meretræ. A preſs, or ſideboard, followed, bearing ten goblets and two vaſes, each of which held the quantity of two meretræ. Then came in order the following articles: twenty-two vaſes called *Pſyctteres*, the largeſt containing thirty meretræ; and the leaſt, one; four noble tripods of gold; a vaſt machine, or caſe, of gold, ten cubits in length,

for

for holding the vaſes, divided into ſix compartments, curiouſly engraved, and adorned with figures of animals, four palms high; two very large goblets; two ſalvers of gold, four cubits in diameter, and three others of leſs dimenſions; ten amphoræ, or great jars of gold; a golden altar, ſix cubits high; and twenty-five pateræ.

We now come to circumſtances that prove this feſtival to have been of the Phallic kind, as indeed were all the Bacchanal feſtivals of ancient æras, Bacchus repreſenting the ſun, the great invigorative power of nature, who ripens the ore in the mine, and therefore properly dedicated to him. In this part of the pomp, gold and ſilver are promiſcuouſly introduced, and I am inclined to think the circumſtance alluſive to his own conjunction with the moon; ſilver being her *chemical* diſtinction. Conſonantly to the idea above-mentioned, ſixteen hundred youths, in the flower of their age, now appear carrying vaſes of gold and ſilver, and three hundred and twenty of that particular ſort of gold veſſel, called, by the ancients, Ψυκτηρες, *vaſa in quo vinum refrigeratur*, or immenſe vaſes, uſed in the hot Eaſtern countries for the purpoſe of cooling

cooling wine. Young men, of more mature years, now ſucceed, carrying pots of gold and ſilver. Next a train of nymphs, ſporting around an artificial cave, drawn along in a car, appeared in crowns of gold, while Mercury waved over their heads a gold *caduceus*, that is, in fact, a thyrſus encircled with ſerpents. Bacchus now re-entered the plain with the ſame gigantic form, but exalted upon an elephant; a radiated crown of gold encircled his temples, and he wielded in his hand a gold thyrſus of conſiderable magnitude. Another elephant followed, upon whoſe neck rode a ſatyr, having on his head a crown of gold; the elephant alſo had a gold crown, and his harneſs and capariſons were entirely of that metal. Five hundred young virgins followed, all decked with crowns of gold; after them, one hundred and twenty ſatyrs in complete armour, ſome of ſilver and others of braſs; and theſe, to render the ſcene as varied and diverting as poſſible, were ſucceeded by five troops of aſſes, glittering in gold and ſilver trappings, with ſileni and ſatyrs mounted on their backs. Next came ſixty Æthiopian ſavages, carrying vaſes full of gold and ſilver coin, and loaded with the gold-duſt which

their

their country ſo abundantly produces. Priapus was too important to be excluded from a Phallic feſtival, and therefore he appeared conſpicuous with a brilliant diadem of gold. The city of Corinth, then the centre of luxury and voluptuouſneſs, was repreſented by a female of great majeſty and beauty, and wore a diadem of equal brilliancy. Alexander himſelf conjured up from the ſhades of Erebus, accompanied by Ptolemy and his other favourite generals, was ſeen ſtalking among the motley croud, admiring the magnificence of his new-built city, and iſſuing orders for the conqueſt of new worlds. Before him, was carried a monſtrous vaſe of gold, poſſibly in alluſion to his death by the Herculean cup, and it was full of ſmall golden cups, by which the ſtream of intemperance flowed among the individuals preſent at the fatal banquet. But now a ſtill more ſplendid and crowded ſcenery took place, and the great diſtinguiſhing pageants of the pomp were uſhered in by a vaſt and beautiful train of women, repreſenting the cities of Ionia and the Grecian iſlands, all bearing crowns of gold, inſcribed with the name of each city, repreſented and decorated with a profuſion of golden ornaments alluſive

to

to its peculiar hiſtory and commerce. They moved on majeſtically, with meaſured ſtep, before a four-wheeled car, bearing an immenſe thyrſus of gold, ninety cubits long; and by its ſide a ſilver lance of the length of ſixty cubits. On another ſuperb car was elevated a PHALLUS of gold, one hundred and twenty cubits in length, and of the circumference of ſix cubits; crowned on the ſummit with a radiated ſtar that blazed in gold. Three hundred youths followed this ſtupendous enſign of Bacchus, wearing on their heads crowns of gold, and carrying, in their hands, guitars overlaid with plates of that metal, which ſounded forth ſymphonies that waked the tranſported ſoul to the pleaſures of love and the feſtivities of wine. The proceſſion, in honour of Bacchus, cloſed with a proceſſion of no leſs than two thouſand bulls, the animal ſacred to that deity, each wearing a frontlet of gold, ſurmounted with a golden crown; and alſo adorned with a collar and ÆGIS of gold. — Bacchus, under the terreſtrial name of Oſiris, being the god-king of Egypt, and the founder of its moſt ancient dynaſty, the reader will ſcarcely be ſurpriſed, that, in the celebration of his rites, all the treaſures of that kingdom ſhould

be

be diſplayed, and that it even ſurpaſſed in ſplendor the pomp of Jupiter and other deities, which now took place, but which can only be curſorily noticed.

As Alexander was the ſon of Jupiter, his ſtatue, in maſſy gold, appeared conſpicuous in that proceſſion, and, after them, were borne ſeveral royal thrones, fabricated of gold and ivory, (among them, probably Solomon's,) to mark his ſubverſion and ſeizure of the imperial thrones of Aſia. All theſe thrones bore crowns of gold, and golden *cornucopiæ*, a ſymbol which we ſee conſtantly impreſſed on the coins of the Ptolemies. Nothing, however, could equal in value or luſtre the gorgeous throne of Ptolemy Soter himſelf, ſet with jewels, and decorated with a crown; in making which, our author informs us, were expended ten thouſand pieces of gold, though of what weight he does not ſpecify. Then followed three hundred cenſers of gold, in which were burned the richeſt perfumes of Egypt and Arabia, and which wafted around the aſſembly thoſe exquiſite odours ſo neceſſary to relieve the ſpirits, that began to be wearied with a proceſſion ſo prolonged, though ſo brilliant. After the cenſers, were borne fifty gilt altars, with

with crowns of gold on each, and on one of which were fixed four torches caſed with gold, ſix cubits in height; twelve gilt hearths, of vaſt dimenſions, for the ſacred fires; nine Delphic tripods of ſolid gold, four cubits in height; eight others, ſix cubits high; another, worthy of Apollo himſelf, thirty cubits in height, adorned with animals, wrought in gold, each five cubits high, and circled with a chaplet of gold, formed to reſemble vine-leaves. Beſides theſe, there was an infinite variety of veſſels richly gilt, which it is beyond our purpoſe to enumerate; but the hiſtorian, ſumming up the number of gold crowns, exhibited in the pomp of Jupiter alone, makes the whole amount to three thouſand and two hundred, independent of a moſt magnificent one, of the height of eighty cubits, which was placed over the portal of the temple of Berenice, the wife of Ptolemy, but taken down to increaſe the unequalled ſplendor of this feſtival.

The moſt remarkable articles exhibited in the pomps of other deities were a great ægis of gold; the innumerable crowns of gold worn by the virgins that contributed to form thoſe pomps; a gold *thorax* of twelve cubits; another of ſilver, eighteen cubits high; a peculiarly ſplendid

ſplendid diadem formed to reſemble oak-leaves, and glittering with precious ſtones; twenty ſhields of ſolid gold; ſixty-four ſets of complete armour all of gold, with greaves of gold, probably of a vaſt magnitude, and theſe were diſplayed in the proceſſion in honour of Mars or Hercules; diſhes, phials, vaſes, and pitchers, of gold; and, in particular, five tables decorated with gold goblets; a prodigious cornucopia of gold, of the height of thirty cubits; the whole pomp being cloſed with twenty carts loaded with ſmaller veſſels of gold; and four hundred full of pateræ, veſſels, and other utenſils, of ſilver.*

The reader, who does not poſſeſs a warm Oriental fancy, may poſſibly be inclined to think all this a fable wilder than Arabian; and yet Athenæus is an author of great reſpectability, and due attention to what has before been obſerved, concerning the rich and abundant ſources whence the treaſures of Eaſtern princes were derived, renders the whole account extremely probable; for, notwithſtanding all the expenſive, and ſome diſaſtrous, wars, in which the Ptolemies were engaged

* Vide Athenæi Deipnoſophiſt. lib. v. p. 197 to 203. Edit. Caſaubon.

for a ſeries of years with the kings of Syria, their potent rivals in wealth and fame, from the Roman accounts of the aſtoniſhing magnificence that reigned in the court of Cleopatra, we may be convinced, that the ſource of the vaſt treaſures of that dynaſty was not dried up; for, in truth, that ſource was the commerce with India, inſtituted by the firſt Ptolemies, and preſerved ſacred and inviolable by the laſt; a commerce, of the magnitude of which ſome judgment may be formed from this circumſtance, that, in the time of Auguſtus Cæſar, the taxes paid to the Roman government by Alexandria alone amounted, according to the loweſt calculation by which Dr. Arbuthnot could eſtimate that amount, to one million ſix hundred twenty-ſeven thouſand five hundred pounds.* The particular inſtance of the ſplendor and profuſion in which Cleopatra lived is to be found in the ſame Athenæus, from whom I have extracted the long deſcription above, and it proves that the gold and ſilver plate enumerated in it ſtill remained in great abundance in the palace of Alexandria; for, having invited Anthony to a banquet at

* Arbuthnot on Coins, p. 193.

which,

which the vaſt number of gold cups, ſet with jewels, excited his admiration and aſtoniſhment, that queen immediately preſented him with the whole aſſortment made uſe of at the entertainment, and ordered her attendants to carry them all to his houſe. The ſucceeding day he was again invited to a royal banquet, and requeſted to bring with him all the chief officers of his army; and, when that banquet was over, every gueſt was preſented with the gold cup out of which he had drunk.* Nay, her extravagance was carried to ſuch an extreme, that, having in her ears two of the fineſt and largeſt pearls ever ſeen, each ſuppoſed to be worth above eighty thouſand pounds of our money, ſhe diſſolved one of them in vinegar, and drank it off; and was going to diſſolve the other in the ſame manner that Anthony might pledge her in a draught of ſimilar coſt, but was prevented by the interference of the company.† It is probable that the famous pearl with which Julius Cæſar preſented Servilia, the mother of Brutus, and worth, according to Arbuthnot,

* Athenæus Deipnoſophiſt. lib. iv. p. 147.

† Plinii, lib. xxxiii. cap. 3.

£48,457 10s. ſterling, came from the ſame quarter; for, Cæſar had been the prior favouriſte of the voluptuous Cleopatra. After theſe well-atteſted facts, which were, in Pliny's time, commonly known at Rome, our author's aſſertion will probably more eaſily obtain credit with the reader, that the regular annual revenue of Ptolemy Philadelphus amounted to fourteen thouſand eight hundred talents in money, independent of the immenſe tribute paid in kind by many of the provinces of Egypt, whence money could not conveniently be drawn; and that, at his deceaſe, were actually found in his treaſury ſeven hundred and forty thouſand talents, a ſum amounting to one hundred and ninety millions ſterling.*

Having taken this view of the riches and grandeur diſplayed in the capital of one of the dynaſties founded after the deceaſe of Alexander, we muſt now direct our ſurvey to thoſe of another, the Selucidæ, who, though denominated ſovereigns of Syria, yet, in fact, poſſeſſed all the rich and extenſive domains that

* Athenæus, lib. v. p. 103, and Bernard on the Weights and Meaſures of the Ancients, p. 186.

formerly

formerly conſtituted the Perſian empire; but Seleucus, the firſt of that dynaſty, having built the ſuperb city of Antioch, in Syria, fixed on that city, as did the ſovereigns, his ſucceſſors, for the metropolis of his empire. There can be no doubt, that, with the throne of Perſia, a very conſiderable portion of its ancient riches was aſſigned to Seleucus, as well to maintain its ſplendor as to defray the expenſes of a government that ſtretched in a vaſt line from the ſhores of the Mediterranean to the river Indus. It ſhould alſo be remembered, that, in this partition of the empire of Alexander, his Indian conqueſts fell to the lot of Seleucus, and though he bartered away thoſe conqueſts to Sandrocottus, by the mediation of Megaſthenes, his ambaſſador at Patna, then the capital of India, we may reſt aſſured, that, from that quarter, by commerce or otherwiſe, no ſmall quantity of treaſure poured into the provinces adjoining its weſtern confines, which muſt ultimately find its way to the diſtant capital. Engaged, however, in almoſt inceſſant wars, and, when peace arrived, reſolutely purſuing, like Ptolemy, the wiſe projects of Alexander in erecting cities, and encouraging that extenſive

commerce for which Antioch was at once ſo commodiouſly ſituated and ſo widely famed, that great prince hoarded not up uſeleſs treaſures, but expended with wiſdom what he received in abundance. His ſucceſſors on the throne of Syria by no means acted with his wiſdom or policy, and, amidſt their other inſanities, violated the harmony that had for many years ſubſiſted between the families of the two moſt renowned generals of the ſchool of Alexander. This raſh conduct occaſioned the deſcent of Ptolemy Euergetes, who, in the reign of Antiochus Theos, with a vaſt army, laid waſte and plundered the richeſt provinces of the Syrian empire, carrying back with him into Egypt no leſs than forty thouſand talents of ſilver, an ineſtimable quantity of gold and ſilver veſſels, and two thouſand five hundred ſtatues, of many of which Cambyſes had formerly pillaged Egypt, and, from returning which to its violated temples, the conqueror obtained, as before-intimated, from its grateful inhabitants, the illuſtrious title of Benefactor.*

* See Juſtin, lib. xxvii. cap. 1, and Hieron. on Dan. cap. 11, in which chapter this irruption is plainly, and almoſt in as many words, predicted.

Still,

Still, however, amidſt the deſolations of war and the ravages of avarice, a ſufficient quantity of treaſure remained to the Seleucidæ for the exhibition, even in the late period of their declining power, and after Antiochus the Great had been deſpoiled by Scipio Africanus of that enormous aggregate of wealth, the influx of which was the ſource at once of the grandeur and ruin of Rome, for the exhibition, I ſay, of a ſpectacle only inferior in magnificence and brilliancy to that of the firſt Ptolemy. We are indebted to Polybius for the deſcription of this ſplendid proceſſion which took place in the reign of Antiochus Epiphanes, at Daphne, near Antioch; the more ſplendid on account of the numerous cavalry who helped to form it, and who, by the luſtre and clangor of the peculiar armour worn by them, as well as the prancing and coſtly capariſons of the noble animal that bears them, never fail to throw an additional glory on this kind of exhibition.

An immenſe body of infantry, in the warlike habits of the reſpective nations of Aſia Minor, Greece, and Rome, having for the moſt part crowns of gold on their heads, and bearing ſhields of ſilver, marched fore-

moſt in the proceſſion. They were followed by a thouſand youths mounted on Nicæan horſes, ſucceeded by three thouſand others on horſes, not indeed of the Nicæan breed, but the fineſt which the other regions of Aſia could produce, all adorned with gold trappings, and wearing gold crowns. A thouſand of the king's friends and relations, arrayed in the moſt ſumptuous dreſſes, followed next on horſes ſtill more ſplendidly capariſoned than the former: to theſe ſucceeded the body-guard of the kings of Syria; a band of four thouſand horſemen, clothed in purple robes interwoven with gold. This part of the proceſſion was cloſed by a hundred and forty-two chariots, richly painted and gilded, drawn ſome by ſix and ſome by four horſes abreaſt.

That part of the proceſſion which related to religion was uſhered in by eight hundred youths, in the flower and bloom of their age, bearing crowns of gold. Theſe walked before the ſtatues of the Syrian and Greek deities, borne aloft by men moſt magnificently attired; after whom immediately followed a thouſand pages, each of whom carried a ſilver veſſel, the leaſt weighing a thouſand drachmas. The king's own pages, amounting to ſix hundred in number,

number, came next, carrying veſſels of gold; and, after them, two hundred virgins, bearing gold chalices, filled with ſcented waters, with which they liberally ſprinkled the ſpectators. In the rear of the proceſſion were borne eighty litters with pillared feet of maſſy gold, on which ſate as many women, probably the wives of the ſovereign, ſuperbly decorated with gold and jewels; and, after them, five hundred more, probably his concubines, with pillared feet of ſolid ſilver.

The ſports and games commenced when the proceſſion cloſed, and afterwards the banquet was ſerved up on fifteen hundred tables, at which an innumerable company partook of the rareſt delicacies in viands and wines which ranſacked Aſia and Europe could furniſh. In the ſpacious banqueting-hall were placed fifteen vaſt baſons of gold, which were filled with unguents of the moſt expenſive kind for the uſe of the gueſts; and the king himſelf, with great affability, attended in perſon upon them, arrayed in his royal robes, and wearing the diadem of Syria.*

With reſpect to Lyſimachus, the third great ſharer of the empire of Alexander, after a

* Athenæus, lib. v. cap. 4, p. 194, 195.

long

long train of varied events, fortunate and diſaſtrous, he himſelf was, at an advanced age, ſlain in a battle with Seleucus Nicator, who made himſelf maſter both of his dominions and treaſures, which were immenſe, and depoſited at Sardis. Caſſander, alſo, the fourth who ſucceeded to Alexander's hereditary kingdom, was too deeply engaged in perpetual foreign conteſts with Antigonus, Demetrius, and other rivals, to allow of his giving any of thoſe magnificent entertainments, by which an adequate idea may be formed of the wealthy ſpoils which he acquired; but a moſt ample and complete view of the wealth that flowed from plundered Aſia into the treaſury of Macedon may be obtained, by adverting to the prodigious treaſure of every deſcription found in the palace of Perſeus, by Paulus Æmilius, when, in the year 167 before Chriſt, he conquered that kingdom, and converted the illuſtrious country that gave birth to Philip and to Alexander into a province of the Roman empire. Theſe treaſures, which were diſplayed in a public triumph decreed Æmilius, amounted to ſuch an immenſe ſum in coined money and bullion, and ſo glutted Rome with gold and

ſilver,

ſilver, that, in conſequence of it, no taxes were levied upon the Roman people for the ſupport of the republic till the conſulſhip of Hirtius and Panſa, a period of one hundred and twenty years, notwithſtanding it was all that time engaged in carrying on expenſive wars in almoſt every quarter of the known world. While the reader is informed of this circumſtance, how muſt his indignation be excited againſt that, in this inſtance, barbarous race of conquerors, for permitting the wretched father, after having been dragged in triumph through the ſtreets of Rome, to periſh by the pangs of famine in a common jail. That indeed was the fate of the father! But harder ſtill the doom of his infant ſons! the firſt of whom died (poſſibly of a broken heart) ſome time before his miſerable parent; while the other, though bearing the auguſt name of Alexander, was denied the education and accompliſhments ſuitable to his noble birth, and finally attempted to have his high ſpirit broken, by being placed out, by this generous and grateful republic, to the degrading occupation of a joiner or turner.

The particulars of the ſplendid triumph decreed Æmilius, for his important conqueſt

of

of Macedon, are minutely detailed by Plutarch, with an extract from which I ſhall cloſe this extended account of the diſperſion of the ſpoils obtained by the irruption of the Greeks into the Higher Aſia.

The celebration of this triumph, the grandeſt that Rome ever witneſſed, took up the ſpace of three days; the firſt of which was wholly occupied by the proceſſion of two hundred and fifty waggons, loaded with captives, and the beautiful productions of the moſt celebrated artiſts of Greece, paintings exquiſitely finiſhed, ſtatues that ſeemed to ſpeak, and all the other rare and ſumptuous ornaments found in the palace of the Macedonian ſovereign. On the ſecond day were diſplayed the various kinds of arms worn by the Macedonians and the conquered Greeks, their allies, conſiſting of helmets, ſhields, coats of mail, javelins, and ſpears; the former moſtly of braſs, the latter of ſteel, all highly poliſhed for the occaſion, and glittering in the beams of the ſun. Amidſt theſe, the ſplendid accoutrements of the renowned Macedonian phalanx, in a more particular manner, excited the intereſt and admiration of the Roman people, while they reflected on the viciſſitudes

viciſſitudes of war, that often obſcure the glory of the proudeſt conquerors. The recorded feats of that once-invincible band ruſhed upon their memories, and the very claſhing of their armour ſtruck the gazing throng with awe and diſmay. After this diſplay, they were feaſted with a ſpectacle which gave birth to very different ſenſations; it was part of the contents of the treaſury of the ſubjugated kingdom, the ſilver currency of Macedon, borne by three thouſand men, in large vaſes that held each the amount of three talents, and every one of which required four men to carry it. The number of the vaſes were ſeven hundred and fifty, and therefore the total ſum amounted to two thouſand two hundred and fifty talents, in coined ſilver only, while a far greater amount in bullion followed in the form of elegant vaſes, cornucopiæ, goblets, phials, and cups of all ſizes, of which the diſtinguiſhing excellence was not ſo much that they were ſilver, but that they were the work of Greek artiſts, equally admirable for the ſublimity of the deſign and the beauty of the execution. The exhibition of the golden ſpoil was reſerved for the laſt and moſt ſplendid day of the feſtival; and the order

order of the march on that day was as follows:

It was uſhered in with a full chorus of trumpets, ſounding notes not ſuch, ſays our author, as were generally heard on theſe public ſolemnities, ſprightly and feſtive, but notes of the more martial and animating kind, ſuch as rouze the ſoul of the young warrior, bring the blood into his glowing cheek, and drive him, in an agony of tranſport, on the terrified enemy. The band of trumpeters was followed by a hundred and twenty oxen, with gilded horns, and decorated with garlands for ſacrifice: theſe were led by a train of young men, adorned with ſaſhes curiouſly wrought, and bearing the ſacrificial inſtruments, who were accompanied by children carrying pateras, ſome of ſilver and ſome of gold. After theſe came, as on the preceding day, three thouſand ſoldiers, who carried the coined money in gold in ſeventy-ſeven veſſels of three talents weight; which, eſtimating the amount according to the proportional value which gold then bore to ſilver, which may fairly be ſtated as one to twelve, and would, probably, in that early period of the Roman empire, be under-rated at the decuple, the general rate of calculation,

calculation, ſwells the total to an enormous ſum, ſuch as Rome till then had been a ſtranger to. The bullion, or gold plate, was next diſplayed; and, firſt, was borne an enormous article of ſacred pomp weighing ten talents, called the *conſecrated phial*, made of ſolid gold, and ſet with precious ſtones. The drinking-veſſels that bore the name of Antigonus, of Seleucus, and of Thericles, becauſe either uſed by thoſe heroes or devoted to their memory, and all the coſtly utenſils of gold that decorated the table and ſide-board of the luxurious Perſeus, conſiſting of diſhes, vaſes, and goblets, to an immenſe amount, were next exhibited in long and brilliant ſucceſſion. After theſe, came the chariot of the captive monarch, in which was ſeen his ſumptuous armour, and on the top of which glittered his raviſhed diadem. The infant-children and their attendants followed, a ſpectacle that melted the moſt obdurate hearts; and laſt was ſeen the unfortunate king, arrayed in ſables, and having the appearance of a man bereaved of his ſenſes, through the magnitude of his misfortunes and the ſeverity of his ſufferings. But all momentary impreſſions of compaſſion were chaſed away from the breaſts of thoſe barbarous

barbarous victors, by the ſplendid pageants that ſucceeded, which conſiſted of four hundred crowns of gold, that had been preſented to Æmilius by the cities of Greece and Aſia Minor, as tokens of their ſubmiſſion to his arms, or veneration of his virtues. The magnificent triumphal car of that conqueror ſucceeded, on which he ſate exalted in a robe of purple interwoven with gold; his brows crowned with a chaplet of laurel, intermixed with gold leaves, holding in his hands a branch of that tree. The proceſſion was cloſed by the whole of his numerous army, who marched after the chariot of their general, waving on high branches of laurel, and rending the air with ſongs of triumph and ſhouts of victory.*

This ſupply, as we have hinted, glutted for the preſent the avarice of Rome; but with her luxuries increaſed her neceſſities, and the thirſt of plunder, not leſs than the love of glory, henceforth, ſtimulated her generals to thoſe daring enterprizes which finally made Rome, in her turn, the miſtreſs of the world. The wealth of ruined Carthage, and, in con-

* Plutarch in Vita Æmilii.

ſequence,

ſequence, the undiſturbed poſſeſſion of the Spaniſh mines ſwelled her treaſury with exhauſtleſs ſtores. The two Scipios, denominated from their conqueſts Aſiaticus and Africanus, poured in upon them, in a full ſtream, the accumulated treaſures of thoſe reſpective regions; the former, after the conqueſt of Antiochus, paid into that treaſury bis millies, which Arbuthnot ſtates to be in ſterling money ſixteen hundred thouſand and odd pounds;* but this is a trifling ſum compared with the vaſt maſs of treaſure brought in by Cæſar, who, Plutarch aſſures us, after his extenſive conqueſts, added to her ſtock, at once, ſixty-five thouſand talents, above twelve millions and a half Engliſh.†

A ſtill more magnificent idea may be formed of the treaſure annually drawn by Rome from her Eaſtern conqueſts, from what we read in Plutarch, that Anthony made Aſia pay, at once, ten years tribute, amounting to twenty myriads of talents, or £38,750,000; the tenth of which is £3,875,000, and therefore gives us the exact tribute for one year.

* Arbuthnot on the Revenues of Rome, p. 191.

† Plutarch in Vita Cæſ.

The effect of the introduction of ſo much wealth into the capital, was an unbounded licentiouſneſs in its inhabitants; who, in their magnificent entertainments and ſumptuous mode of living, far ſurpaſſed the princes of Aſia itſelf; for, we ſoon after find them ſleeping on beds of gold and ivory, quaffing the rich wines of Chios and Falernuus out of gold and ſilver goblets, and riding in carriages ſhining all over with thoſe bright and precious metals. To ſupply this unlimited extravagance, the governors of theſe provinces, whence they were principally obtained, as we learn from Cicero againſt Verres, committed the moſt unheard-of extortions; while the moſt ſhameleſs corruption pervaded every department of the ſtate, and the moſt infamous crimes polluted the whole body of the citizens. Indeed, how was it poſſible for the ſtream to be pure when the fountain itſelf was ſo deeply contaminated? When we find a Vitellius conſuming between ſeven and eight millions a year on entertainments, and a Caligula expending above eighty thouſand pounds ſterling on a ſupper, we cannot wonder at the tragedian Clodius Æſopus laviſhing on one luxurious

luxurious diſh 600 *ſeſtertia*, £4,843 10*s.** or the young ſpendthrift, his ſon, treating each of his gueſts, after dinner, with a ſuperb cordial, in which a coſtly pearl had been diſſolved.† The wealth of Craſſus was proverbially great, and amounted to £1,614,583 6*s.* 8*d.*; but far greater was that of Pallas, the freed man of Claudius, for it was valued at £2,421,875; but both were exceeded by that of Lentulus, the augur, who was worth *quater millies*, or £3,229,166 13*s.* 4*d.* Even poets and philoſophers, in thoſe golden days, amaſſed vaſt fortunes; for Seneca, in four years, acquired *ter millies*, £2,421,875; and, according to Servius, in the life of Virgil, that poet was worth *centies* H. S. or £80,729 3*s.* 4*d.* This ſum, however, though great for a poet, was not thought ſufficient to ſupport exiſtence by a pampered Roman ſenator, ſince the famous Apicius, after ſpending in culinary delicacies *millies* H. S. or £807,291 13*s.* 4*d.* and ſquandering, beſides, the amount of immenſe grants and penſions, on caſting up his accounts, finding he had only this exact ſum remain-

* Pliny, lib. x. cap. 60. † Ibid. lib. xxxv, cap. 12.

ing, poiſoned himſelf, that he might not periſh by the ſeverer pangs of famine.

In their dreſs and furniture they were equally expenſive; for Lollia Paulina, the great beauty of Rome in the time of Caligula, and on that account compulſively advanced to his bed, when full-dreſt, conſtantly wore jewels of the value of £322,916 13*s.* 4*d.* and the price for rich Babylonian *triclinaria*, coverlids, or carpets for their dining-beds, was £6,458 6*s.* 8*d.* Nor could their houſes themſelves be of mean fabric or decoration; ſince that of Craſſus was valued at *ſexagies*, H. S. or £48,437 10*s.* while that of Clodius coſt *centies et quadragies octies*, or £119,479 5*s.* 4*d.** Thoſe houſes were externally caſed with marble, and had marble pillars to ſupport the lofty ceilings; they were internally decorated with rich tapeſtry; with coſtly hangings of Tyrian purple; with urns and ſtatues exquiſitely ſculptured and poliſhed, and paintings of the moſt beautiful deſign and brilliant colours; fountains of variegated marble played in their cœnacula, or great banquetting-rooms, cooling the air

* Pliny, lib. xxxvi. cap. 15.

and

and refreſhing the gueſts, who dined off gold plate, ſerved up on tables overlaid with ſilver, and reclined on ſofas ſuſtained by legs of ivory, ſilver, and ſometimes even gold. They were alſo uncommonly ſplendid in the article of lamps, which were often fabricated of the moſt precious materials, and in which they burned the moſt coſtly and fragrant oils. The immenſe wealth that flowed by ſo many various channels into Rome was not all conſumed in that city: great quantities were carried away into remote provinces by the numerous and ſucceſſive governors, and other men of conſular and prætorian dignity, who finally ſettled there, with their families, in voluntary or compelled exile. A very conſiderable portion, too, was, in the infancy of the republic, tranſmitted to ſupport and pay the numerous armies conſtantly ſtationed in Gaul, Germany, Britain, and other countries, where gold had not before abounded; ſtill, however, by far the greater part was ſwallowed up in the deep vortex of Rome itſelf; and it is on record, that Tiberius left in the public treaſury *vicies ſepties millies*, £21,796,875 3*s*. 4*d*.* The emperor Cali-

* Plutarch, in Vita Tiberii.

gula, his ſucceſſor, delighted in rolling himſelf about, in all the inſatiable luſt and pride of avarice, in immenſe quantities of gold coin, ſpread abroad on the ſpacious floor of his palace. Yet was this inſane cupidity preſently ſucceeded by as wild extravagance, in throwing down money by handfuls, from a high tower, among the ſcrambling populace, and this continued for many days together, as well as at entertainments; wherein every article, not only the diſhes, but the viands alſo, though bearing the form of meats, were of ſolid gold; the fictitious meats and golden diſhes being afterwards diſtributed among the gueſts.* Nor was it only for human beings that he provided this ſpecies of golden banquet; his favourite horſe, whom he denominated *Incitatus*, muſt alſo ſhare the ſumptuous repaſt. The ſtable of that animal was formed of fine marble; his manger was of ivory; he wore a collar of rich pearls round his neck, and his capariſons were of Tyrian purple. Thus ſplendidly accommodated, it ſeems but conſiſtent that this prince of a horſe ſhould be regaled with

* Suetonius in Caligula, cap. 29.

equal

equal magnificence; he, therefore, was fed with gilded oats, and drank the moſt coſtly wines out of golden chalices. In theſe and ſimilar abſurdities, this frantic tyrant, this alternate miſer and prodigal, in the two laſt years only of his ſhort reign, is reported to have ſquandered away eighteen millions of the public money.

However prodigious were the ſums expended by the emperors of Rome, they were ſoon reinſtated in the treaſury by their abſolute power and boundleſs rapacity; and the reign of Claudius exhibits an inſtance of three perſons, his freed men and chief miniſters, Narciſſus, Pallas, and Caliſtus, who are ſaid to have amaſſed more wealth than Croeſus and all the kings of Perſia and of the empire, and to have been, in their delegated government, equally rapacious and profuſe; keeping their weak and timid ſovereign in the chains of dependence and poverty. But whatever ſums avarice might have hoarded, or extortion obtained, were diſſipated by that monſter in human ſhape, Nero, in the gratification of his unbounded luſts, and in the erection of that ſtupendous ſtructure, called his *Golden Palace*, from the vaſt profuſion of that metal

with which it was adorned; the roof, the walls, the galleries, the ſaloons, all glittering with gold, ivory, and precious ſtones. We may form ſome judgment of the immenſe ſum conſumed in the building this palace from what we read in Suetonius, viz. that Nero not having finiſhed it, the firſt order which Otho, when he became emperor, ſigned was for *quingenties*, H. S. or fifty millions of ſeſterces, to complete it; which, reduced to pounds ſterling, amount to £403,645 16*s.* 8*d.** The enormous ſums ſpent by the imperial glutton Vitellius on his ſumptuous banquets, repeated four times a day, have been already ſpecified, and apparently juſtify the ſtrong aſſertion of Joſephus, that, had he lived much longer, the revenues of the whole Roman empire would ſcarcely have been ſufficient to furniſh his luxurious table.

After exhibiting to the reader this faithful picture of the great wealth and prodigality of the Roman people under the early Cæſars, the conquerors of ravaged Aſia, there is no occaſion for our extending the view farther, or enumerating all the unbounded extrava-

* Suetonius in Otho, cap. vii.

gance

gance of their ſucceſſors. During the ambitious conteſts that gradually weakened, then divided, and finally ſubverted, that empire, the precarious ſtate of all property, but particularly that ſpecies of it which conſiſted in gold and ſilver, coined or in bullion, every where ſought for with avidity by the different uſurpers, to pay the armies which they reſpectively brought into the field, occaſioned an immenſe quantity of treaſure to be buried all over Italy under-ground in vaults and caverns, in gardens, in fields, and under the floors and walls of their houſes. The jealous poſſeſſor, forcibly hurried away to the field of battle, expired on that field, and the important ſecret, in what obſcure ſpot it was concealed, periſhed with him. Nor was it only in Italy that they were thus buried; the diſtant provinces felt, through all their limits, the convulſion of the capital; and the inhabitants, haraſſed by ephemeral tyrants, committed their treaſures to the too faithful boſom of the concealing earth. Theſe have occaſionally been dug up, through every ſucceeding century, in Gaul, Germany, and Spain, ſometimes in very large quantities; and have well rewarded the toil of the for-

tunate

tunate huſbandman, and the zeal of the exploring antiquary. A treaſure of no leſs than eighty thouſand large gold coin or medals, each of the value of ſix Roman crowns, was, according to Mountfaucon,* in 1714, diſcovered near Modena in Italy. They ſeemed all to have been ſtruck in very early periods of the Roman grandeur, and the leaſt antique of them were thoſe of Julius Cæſar and the Triumvirate. Particular reaſons induced M. Fontanini, the correſpondent of Mountfaucon, who tranſmitted him an account of the diſcovery, to ſuppoſe theſe medals belonged to the military cheſt of the army collected by Lucius Antonius and Fulvia againſt Auguſtus. The treaſures of Roman money alſo dug up in France, Germany, and Spain, during the middle centuries, were amazingly great; and, during the failure of the ancient ſources of wealth, in part ſupplied the quantity neceſſary for carrying on the commercial intercourſe of Europe.

Before we conclude this Diſſertation on the treaſures of the ancient world, it is neceſſary

* See the Supplement to Mountfaucon's Antiquities, book v. p. 329.

we

we ſhould again advert to thoſe Aſiatic regions whence we commenced our ſurvey, and where, eſpecially in India, the ſame pernicious practice of burying money in vaſt quantities has immemorially prevailed. And here we may remark, that, although in the vaſt ſums of coined money at different periods dug up in Europe, the overflowing wealth of the Roman capital may, in ſome degree, be accounted for; yet, as immenſe treaſures muſt have ſtill remained diſperſed over the extenſive provinces of Aſia, which never found its way into Europe, hoarded in the coffers of the miſer, or concealed in the vaults of the palaces of the kings and ſatraps of the Eaſt, far more remains ſtill unaccounted for, or how comes it that ſuch a ſlender ſtock of Aſiatic coins is to be found in the cabinets of thoſe affluent curioſi, who have ſpared neither toil nor expenſe to ſearch for and procure them? Of Darics and Philippi there are very few indeed: of the immenſe heaps of money coined by the Ptolemies, and the other Greek ſovereigns who ſucceeded Alexander, a very moderate proportion alſo has reached poſterity. India, thou avaricious glutton, whoſe rapacious jaws, from the firſt of time, have

ſwallowed

ſwallowed the gold and ſilver of the world, it is thou that haſt cauſed this dearth: confeſs thy treachery to the cauſe of medallic ſcience; they have gone to ſwell the magnificence of thy pagodas, and, without the leaſt regard to the grandeur of the deſign, the majeſty of the character impreſſed, or the unequalled beauty of the execution, thy refiners have melted them down in their crucibles to an unanimated maſs, of value only proportioned to its weight.

On the plains of India, alſo, not leſs than on thoſe of Europe, are ſuppoſed to lie buried treaſures, principally in bullion, to an incalculable amount, depoſited there during the ravages and oppreſſion of ſucceſſive conquerors, through at leaſt eight centuries of anarchy and tumult; I mean, from the 7th century to the mild and peaceable reign of Akber. Theſe are now and then, though rarely, diſcovered, and ſometimes Greek coins, probably of high antiquity, as the Greeks of Caria and other maritime countries viſited the coaſts of the peninſula almoſt as early as the Phœnicians themſelves. Mr. Chambers, in his account of the ruins of Mavalipuram, written in 1784, acquaints us, that he was informed

informed by the Kauzy of Madras, that, ſome years previous to that period, a RYOT, or huſbandman, in ploughing his ground, had found a pot of gold and ſilver coins, with characters on them which no one in thoſe parts, Hindoo or Mahommedan, (therefore, plainly, neither Arabic nor Sanſcreet,) was able to decipher. That the Kauzy, however, at the ſame time informed him, all ſearch for them, then, would be in vain, for they had doubtleſs long ago been devoted to the crucible, as, in their original form, no one there thought them of any value.* The extenſive plains of Tartary are, alſo, ſuppoſed to contain inexhauſtible ſtores of treaſure buried by the Arab and Tartar hordes, who range over thoſe wild ſolitudes, during either their ancient implacable conteſts with each other, or the invaſion of the Parthians and other hoſtile nations combined againſt them.

With reſpect to India, independent of the domeſtic ſtatues, which, it has already been obſerved, it was cuſtomary with the ancient Indians to form out of the precious metals in fuſion, we are well aſſured that all

* Aſiatic Reſearches, vol. i. p. 158. Calcutta, quarto edition.

the

the great pagodas of India had complete ſets, amounting to an immenſe number, of the avatars and deities, which they would probably deem degraded by any baſer metals or meaner ſubſtance than gold and ſilver, except in thoſe inſtances in which their mythological ſuperſtition ordained that the deity fabricated ſhould be of ſtone, as in the inſtance of Jaggernaut, which Captain Hamilton repreſents as a *pyramidal black* ſtone, (in the ſame manner as the ancient Arabians fabricated their deity, though of a *ſquare* figure, to mark his perfection, while the *darkneſs of the ſtone* indicated the obſcurity of his nature,) with, however, the richeſt jewels of Golconda for eyes; and, in that of Veeſhnu, in the great baſon of Catmandu, in Nepal, ſculptured in a recumbent poſture, and of *blue marble*, to repreſent the primordial ſpirit, at the commencement of time, floating on the *cærulean* ſurface of the Chaotic waters. In the Ayeen Akbery there is a very curious chapter on the great ſkill of the Indian artiſts in working in gold and jewellery, in which it is expreſſly affirmed, that the AVATARS are frequently made of gold and ſilver;

ſilver;* and, ſince, if completely repreſented, the figures muſt be numerous, great quantity of thoſe metals muſt have been conſumed in their fabrication.

The cuſtom of burying every thing moſt valuable at the approach of an invader is ſo ancient and ſo general in Hindoſtan, that there can be no doubt of many of theſe coſtly appendages of the ancient rich pagodas having been thus diſpoſed of. I have, myſelf, ſeen numerous fragments of theſe avatars and deities, that have been dug up in fields and gardens, caſt in bronze and other metals; and, if they buried theſe of inferior metals, they undoubtedly would, with ſtill more anxious care, thoſe of the more precious kind. It has alſo been an immemorial practice in India to throw gold, precious ſtones, and other ſumptuous articles, by way of offerings, into the Ganges, Jumna, and other great rivers, nearly all of which are regarded in a ſacred light by that ſuperſtitious people; and, therefore, the ſandy beds of thoſe rivers may be juſtly conſidered as mines of treaſure, and reckoned among the richeſt that Aſia affords.

* Ayeen Akbery, vol. i. p. 242.

I have,

I have, in a preceding page, enumerated ſome of the more ſplendid oblations of their ancient rajahs, to purchaſe atonement for crimes committed againſt heaven, and, among other articles, their golden horſes, golden cows, trees and vines of gold, ploughs of gold, chariots drawn by horſes and elephants all of gold. It was added, that the value of theſe offerings varied from 10 to 6660 tolahs; that the tolah is a weight peculiarly appropriated, throughout the Mogul empire, to thoſe precious commodities; a hundred tolahs amounting to thirty-eight ounces; and that, from the vaſt amount of thoſe oblations, evident proof ſeemed to ariſe that India was formerly much more abundant in gold than in periods leſs recent. I ſhall now, in addition to that account, ſubjoin a very curious chapter from the Ayeen Akbery, relative to the exquiſite perfection in gold and jewellery work, to which their artiſts had, in Akber's time, arrived; not only becauſe it cannot fail of impreſſing on the mind of the reader the object of this Diſſertation, which is the profuſion of gold in India, but becauſe the enumeration of the ornaments of gold and jewels, worn by the inhabitants of India, will afford them

them a lively ſpecimen of their taſte in dreſs, and their oſtentatious mode of decorating their tawny perſons.

## ORNAMENTS OF GOLD AND JEWELS ANCIENTLY WORN BY INDIAN WOMEN OF RANK, EXTRACTED FROM THE AYEEN AKBERY.

" SEISPHOOL is a flower reſembling the marigold, made of gold, and worn on the head. *Mang*, an ornament worn upon the parting of the hair of the head. *Gowtbilladudir* is an ornament for the forehead, conſiſting of five ſhort points and a long one. *Sebra*, ſeven ſtrings of pearl, or more, interſperſed with natural flowers: this is faſtened to the forehead, and covers the face. It is chiefly worn at marriages, and by a mother on the birth of a ſon. *Teeka*, a jewel in the ſhape of a creſcent, which is worn upon the forehead. *Bindelee*, a round piece of gold, ſmaller than a mohur, which is worn upon the forehead. *Khuntehla*, an ear-ring of a conical form. *Kurrenphool*, an ear-ring reſembling a roſe. *Deerbutcha*, another kind of

ear-ring. *Peepulputty*, ſmall creſcents, nine, or more, of which are worn in each ear. *Ballee Chumpakullee*, a ſmall golden roſe, worn on the thick part of the ear. *Mowrbhenwir*, an ear-ring in the ſhape of a peacock. *Beyſer*, a kind of noſe-jewel. *Phoolee* reſembles a roſebud with a ſtalk, and is worn in the noſe. *Lowng* is a golden clove, which is worn in the noſe. *Nut,h*, a gold ring, upon which are a ruby and two pearls, or other jewels: it is worn in the noſe. *Gooloobband*, a necklace, conſiſting of five or ſeven ſtrings of very ſmall gold roſes. *Har*, a ſtring of pearls and flowers hanging from the neck. *Hans*, a collar. *Kungun*, a bracelet. *Gujreh*, a bracelet of pearls and gold. *Jewee*, five gold barley-corns ſtrung upon ſilk, and worn round the wriſts. *Choor*, another kind of bracelet. *Bahoo*, a ſmall kind of bracelet. *Chooreen*, another very ſmall kind of bracelet; ſeven of which are worn round each wriſt. *Bazoobund*, ornaments for the arms. *Taar*, a hollow ring, worn upon the arms. *Ungoothee*, rings, which are of various forms. *Choodirghunta*, gold bells, ſtrung upon ſilver wire, and worn round the waiſt. *Kutmekhla*, a gold belt. *Jeeher*, three gold rings for each ancle. *Choora*,

two

two half-circles, made of gold, which join round the leg. *Doondnhee*, like the *choora*, but ornamented with engravings. *Muſſowree*, differs from the *doondnhee* in nothing but the engraving. *Payil*, rings worn round the ancles. *Ghoongrco*, little gold bells ſtrung upon ſilk, which are worn about the ancles, between the *jeeher* and *payil*. *Bank*, ornaments for the top of the foot, and which are either ſquare or triangular. *Beetcheva*, toe-rings, half a golden ball. *Unwut* is a ring worn upon the great-toe.

"The jewels above-deſcribed are made either plain, or ornamented with gems; and are of various faſhions. The Hindoo goldſmiths are ſuch exquiſite workmen, that ſometimes they charge a gold mohur for working a tolah of gold."*

Their peculiar mode, alſo, of ſetting in gold, deſerves the attention of the European artiſt, and therefore is inſerted.

"The jewellers of other countries faſten jewels in the ſettings with lack; but thoſe of Hindoſtan make uſe of a kind of gold which they called *Kurden*, and which is ſo malleable,

* See Ayeen Akbery, vol. i. p. 262.

that the ſtory of Parvez's gold, which he could mould with his hand like wax, ſeems credible. It is prepared by ſtratifying very thin plates of gold with field cow-dung, and a particular kind of ſalt, called *ſambhir*; when it is put into a fire of cow-dung, which is ſuffered to expire. And theſe operations are repeated till the gold is ſufficiently refined. When it is thought to be quite pure, it is put into an earthen veſſel, with lime-juice, or ſome other acid, and placed in the fire. After this, it is wound round a ſtick, and, if it is not ſufficiently ductile, the ſtratifications are repeated. The goldſmith firſt puts a little lack into the ſocket, and over it a piece of this *Kurden* gold. Then he preſſes down the ſtone upon the gold, and faſtens the ends over the ſides; which fixes the ſtone ſo faſt, that there is no danger of its falling out."*

My principal concern, in theſe Antiquities, being with Hindoſtan, before I return to the conſideration of the ſtate of Europe, and its pecuniary wealth in thoſe times, I ſhall hiſtorically notice the ſucceſſive plunderers of that empire, after Mahmud, of Gazna. That ſcourge of India died in the

* See Ayeen Akbery, vol. i. p. 264.

year

year 1028, of our æra; Gengis appeared firſt as a warrior on the plains of Aſia towards the commencement of the 12th century; but his conqueſt of the brave Gelaleddin, on the banks of the Indus, neither ſecured him the ſovereignty of India, nor put him in poſſeſſion of that prince's immenſe treaſures; for, Gelaleddin conſigned thoſe treaſures to the Indus, whence a conſiderable portion was fiſhed up by the avaricious victor. The ſources of abundant wealth, however, were by no means wanting to a deſpotic prince, great in council and vigorous in arms, whoſe empire is deſcribed, by M. Petit de la Croix, to have been greater than that of Alexander or Auguſtus, extending, from eaſt to weſt, more than eighteen hundred leagues, and more than a thouſand from north to ſouth.* Great indeed that wealth muſt have been, ſince we find this monarch making public banquets that laſted an entire month;† and the officers of his army riding on ſaddles of gold, and glittering with precious ſtones. But the luxury of the Tartars had not yet reached its zenith; it was exemplified in its full

* Hiſtory of Gengis-Khan, p. 2. † Ibid. p. 353.

ſplendour by Timur, his deſcendant, in the beginning of the fifteenth century, at a feaſt which he made on a delightful plain called *the treaſury of roſes*, at which, ſays an author not given to exaggerated relation, was exhibited ſuch a diſplay of gold and jewels, that, in compariſon of them, the riches of Xerxes and Darius were trifling.* That author here alludes to the following curious account, by Sheriffeddin, of the ſumptuous feaſt celebrated by Timur, at Canaghal, on account of the marriage of his ſons; an account which, becauſe it is exceedingly curious, and gives us a lively idea of the Tartar manners, I ſhall preſent the reader with unabridged. It took place on the 17th of October, 1404.

"The palace of Canaghal, a word which means *the treaſury of roſes*, and all the neighbouring places, were adorned with the greateſt magnificence; ſo that this autumn-ſeaſon rendered, in a manner, even the ſpring jealous. The tents were tied with ſilken cords, in which were abundance of carpets wrought with gold: the curtains were of velvet of

* Sir William Jones's Short Hiſtory of Aſia, prefixed to Nadir Shah, p. 68.

Chuchter;

Chuchter; and the cielings of ebony and ivory exquiſitely engraved. The emperor's apartment conſiſted of four great incloſures, which are called Seraperd, built on very regular plans. His Khergiah, or imperial pavilion, made two hundred tents, gilt, and adorned with precious ſtones. Each tent had twelve columns of ſilver, inlaid with gold. The outſide was ſcarlet, and ſeven other colours; and the inſide ſatin of all colours. The upholſterers, of whom there was a great number, had employed a whole week in erecting and furniſhing this magnificent apartment. The mirzas and emirs had alſo each a ſeraperd, a barghiah, tents, and a great pavilion named kherghiah.* The columns of the tents were of maſſy ſilver, and the floor was covered with the richeſt carpets.

"The governors of the provinces, the generals of the army, the lords and principal commanders of the empire, aſſembled in this place, and pitched their tents in good order.

"The emperor was not the only perſon who partook of the joys and diverſions; for both

* Seraperd is an incloſure; barghiah a great hall of audience; and kerghiah a great pavilion. The two laſt are incloſed in the ſeraperd.

high and low had their ſhare. The moſt ſkilful artiſts prepared ſome maſter-piece of their art, as trophies and cabinets of flowers to repreſent triumphs, which were adorned with garlands made up with perfect ſymmetry. There were, in the jewellers ſhops, necklaces of pearls and precious ſtones, eſpecially of grenadin and balaſs rubies, with an infinite number of pieces of rock-chryſtal, coral, and agate, and ſeveral rings, bracelets, and ear-rings; all which rendered Canaghal a mine of gold and precious ſtones, inſtead of a mine of flowers, which its name implies.

" The emperor ordered the aſtrologers to chooſe a happy moment for an affair of ſuch importance; which being done, the firſt officer of the houſehold drew the curtain of the gate. The cadis, cherifs, imams, and doctors, of the empire, met the emperor; and, having agreed on the articles of marriage, the great doctor, Cheik Chamſeddin Mehemed Jazari, was choſen to read them to the aſſembly. The grand cadi of Samarcand received the mutual conſent of the parties, which he regiſtered; and then, according to the maxims of the Hanafyan law, he

he joined the princes and princeſſes together in marriage, on whom every one ſprinkled gold and precious ſtones.

" The emperor, being ſeated on his throne, ordered a banquet of the utmoſt magnificence to be ſerved up to the brides, and the other ladies of the court, by the moſt beautiful young women of his ſeraglio, who wore crowns compoſed of flowers. The princes of the blood, emirs, nevians, cherifs, and foreign ambaſſadors, took their places according to their rank and dignity, as well as the emirs of Tomans and Hezares. Theſe lords were ſeated under a canopy of twelve columns, diſtant from the nuptial-hall about a horſe's courſe.

" The yeſaouls, or exempts, whom the Turks call chaoux, were there, backwards and forwards, to perform the function of their poſts, mounted, in a magnificent manner, upon horſes of great price, with ſaddles of gold, adorned with precious ſtones, and habited in veſts of gold brocade, with an air of authority* and command.

* The yeſaouls carry in their hands, as a ſign of their office, a ſilver wand.

" On

"On another ſide there were elephants of a prodigious ſize, on whoſe backs were placed a kind of thrones, with abundance of ornaments. Under the canopy with twelve columns were placed earthen urns, with ſtrings of precious ſtones tied about them, filled with gold and ſilver poſts; and on the tops were cups of gold, agate, and rock-chryſtal, adorned with pearls, and ſeveral ſorts of jewels, all which were preſented on ſalvers of gold and ſilver. The drink was cammez,* oxymel, hippocras, brandy, wines, ſirma, and other liquors. It is reported that the wood of ſeveral large foreſts was cut down to dreſs the victuals at this banquet. The head-ſteward, with his under-officers, conſtantly attended to give all neceſſary orders as to the ſerving up of the diſhes, before which an officer always walked. There were tables furniſhed in different places throughout the whole plain, and flaggons of wine ſet near the tables, with an infinite number of baſkets full of fruit. Beſides the flaggons for the emperor's uſe, and for the lords of the court, there were ſeveral jars ranged in all the plain for the people's

* Cammez is a drink uſed among the Tartars.

drinking;

drinking; and, that the joy might be univerſal, the emperor ordered a proclamation ſhould be publiſhed that all the people might enjoy what pleaſures they pleaſed, and no one take cognizance of them. The crier read the proclamation as follows: 'This is the time of feaſting, pleaſure, and rejoicing. Let no one complain of, or reprimand, another. Let not the rich encroach upon the poor, or the powerful upon the weak. Let none aſk another, Why have you done thus?' After this declaration every one gave himſelf up to thoſe pleaſures he was moſt fond of during the feaſt; and whatever was done paſſed unobſerved.

"At length the feaſt was finiſhed; after which, according to cuſtom, a vaſt quantity of curious moveable goods was laid upon mules and camels for the new-married princes; among which were all ſorts of rich habits, crowns, and belts ſet with precious ſtones. The mules had coverings of ſatin embroidered with gold: their little bells were gold, as well as thoſe belonging to the camels; and both were handſomely adorned. This pompous equipage paſſed before the people, who were ſtruck with admiration. The bride-grooms,

with

with their brides, were clothed nine times in different habits, with crowns and belts ſet with precious ſtones; and, each time they changed their clothes, they paid their reſpects as uſual; while gold and precious ſtones, pearls, rubies, and balaſs-rubies, were ſprinkled upon them in great numbers, with which the ground was covered, and which became the profit of the domeſtics.

"The following night there were every where illuminations with lanterns, torches, and lamps; and the new-married princes entered the nuptial-chamber. The next day Timur did them the honour to pay them a viſit at their own apartments, being accompanied by the empreſſes, and great emirs, and cherifs, of his court. The rejoicings were ſo great throughout the whole empire, that, from Canaghal, as far as Tous, in Coraſſana, there was not one place where the ſound of drums and trumpets was not heard."*

There can be no doubt but that the greateſt part of the wealth thus diſplayed was obtained in the plunder of India: and, in the account of Timur's capture of Delhi, in the firſt vo-

* Hiſtory of Timur-Bec, vol. ii. p. 359.

lume,

lume, I have already enumerated a portion of the treaſures which he found in that city, of which, I obſerved, ſome judgment might be formed from the immenſe quantities of precious ſtones, pearls, rubies, diamonds, gold and ſilver veſſels, money, and bullion, carried away by the army; that even the Indian women and girls were adorned with a profuſion of precious ſtones, and had bracelets and rings of gold and jewels, not only on their hands and feet, but alſo on their toes; and that of thoſe precious ornaments every individual had ſecured ſo ample a ſtore, that they refuſed the incumbrance of more, ſo that vaſt heaps of various plunder of ineſtimable value were left behind.

Here, then, we ſee collected into one central ſpot all the remaining maſs of Aſiatic wealth which either flowed not into the hands of the Romans, or was tranſported back by commerce, and opulent governors, from that capital. In about a century from this period America was diſcovered, and opened to the daring warrior and adventurous merchant new and invaluable ſources of wealth; which, being exported by various channels to the Eaſtern world, recruited the treaſures of Perſia and

and India, exhauſted by the repeated ravages of Mohammedan conquerors. But ſince that important diſcovery may be looked upon as the commencement of a new æra in riches and in commerce, the incidents ariſing from it do not properly come under our ſurvey in a Diſſertation on the wealth of the *ancient* world. Till that diſcovery took place, the great marts of Europe poſſeſſed but a very ſcanty portion of gold and ſilver; for, the jealous avarice and gloomy bigotry of the Mohammedans, in whoſe hands now centred the whole trade of Aſia, had combined to ſhut out the European merchants from the rich port of Alexandria, and other maritime cities of the Eaſt. During this interval, however, a very ſeaſonable ſupply of gold and ſilver bullion was fortunately met with in the mines of Germany, firſt diſcovered and wrought, according to Dr. Brown, about the year of Chriſt 700; traditions on the ſpot having fixed the working of that of CHREMNITZ, the principal and moſt productive, ſeveral Engliſh miles in length, to that period. The rigid maxims that urged the Mahommedan deſpots of the Eaſt to exclude from all participation of the Indian commerce the Chriſtian traders being

being afterwards ſomewhat mitigated, Europe received, through the medium of the Genoeſe and the Venetians, an additional influx of the precious metals produced on the coaſt of Africa and the regions bordering on the *Aurea Cherſoneſus*. Still, however, in the great trading-cities of Europe, gold and ſilver were comparatively ſcarce, and continued ſo, till a ſeries of ſucceſs, as unexpected as unmerited, opened to the Spaniards the vaſt ſtorehouſes of theſe metals in America, whence the golden deluge has never ſince ceaſed to flow into their ports; and, being thence diffuſed through the courts and palaces of Europe, has given them the appearance of Aſiatic ſplendour, and fixed on the heads of her auguſt ſovereigns diadems more brilliant than thoſe that anciently ſparkled on the brow of the great Shah of Perſia or the magnificent Mogul of India.

END OF THE DISSERTATION ON THE IMMENSE TREASURES IN BULLION AND COINED MONEY OF THE ANCIENT SOVEREIGNS OF ASIA.

A

# DISSERTATION

ON THE

# LITERATURE

OF THE

# ANCIENT INDIANS.



16223

A

# DISSERTATION, &c.

## CHAPTER I.

*General Account of the* SANSCREET LANGUAGE, *Grammar, and Alphabet. — The high Antiquity and wide Diffuſion of that Language over the Eaſtern Region of Aſia. — An Inveſtigation of the* SCIENCES *of the Brahmins, not hitherto diſcuſſed in the Indian Antiquities. —* ASTRONOMY, *neceſſarily cultivated, in the remoteſt Periods, by a Race devoted to Agriculture, and immemorially addicted to the* SABIAN SUPERSTITION. *— A retroſpective Survey of the great Outlines of this Science, as anciently known in India. —* GEOMETRY *proved to have flouriſhed among them, from its Connection with the former Science in its advanced*

*State, as well as from their maſſy Style of Architecture, &c. &c.* — MEDICINE, —*the Devotion of the ancient Indians to* BOTANICAL *Reſearches, induced an intimate Acquaintance with that Branch of the Science.* —*The Neceſſity of providing Remedies againſt the Bites of Serpents, and other noxious Reptiles abounding in India, promoted their farther Progreſs in it.* —*The Sanſcreet Treatiſes on Medicine conſiſt principally of Receipts preſerved from Age to Age, and carefully handed down from Father to Son.* —*The ancient Indians proved to have been not ignorant of Anatomical Diſſections, though regarded with Abhorrence by the modern Brahmins.* —*Low State of the Science among the latter.* — CHEMISTRY, — *a Knowledge of this Science, eſſentially important in various Branches of Indian Manufactures; proved in their* AGNEE-ASTRA, *or Fire-Weapons uſed in Battle; as well as other warlike Inſtruments employed by a People whoſe ſecond Tribe is entirely military.*

THE doctrine that aſſerts the derivation of all the nations of the earth, however widely and variouſly diſperſed, from one grand parent

parent ſtock, according to the hypotheſis adopted throughout theſe volumes, — a doctrine equally conſonant to the voice of Scripture and the annals of India, — implies that, in the remote period previous to the diſperſion of the human race, they uſed, in common, one primæval language, *radically* the ſame, and, at the confuſion of Babel, only varied in the mode of its pronunciation; in other words, that it was a confuſion of *the lip*, and not an alteration of language, which took place on that cataſtrophe; a *labial failure*, as Mr. Bryant judiciouſly expreſſes himſelf,* which, in effect, proved ſufficient to fruſtrate their impious deſign in rearing that mighty fabric. The veſtiges of this primordial language, in every dialect of the ancient world, are clearly traced in the elaborate work of M. Court de Gebeline; and, though Sir William Jones, in one of his later diſſertations,† ſeems to doubt the exiſtence of the remains of this univerſal language, yet, in various preceding eſſays, that great linguiſt unequi-

* See Analyſis of Ancient Mythology, vol. iii. p. 30.

† On the Origin of the Families of Nations, in the third volume of Aſiatic Reſearches.

vocally aſſented to the prevalence of one primary tongue throughout the early branches of the Noachic family, referring even the ſublime invention of letters, and the origin of aſtronomy itſelf, in which ſcience it appears extremely probable the celeſtial aſteriſms were firſt deſignated by the *letters of the alphabet*, to the children of Ham in Chaldæa: and his diſcuſſion on this important ſubject, though it ſomewhat claſhes with the ſubſequent aſſertion alluded to above, is given in theſe words. " The Sanſcreet language, whatever be its antiquity, is of a wonderful ſtructure; more perfect than the Greek, more copious than the Latin, and more exquiſitely refined than either, yet bearing to each of them a ſtronger affinity, both in the roots of verbs and in the forms of grammar, than could poſſibly have been produced by accident; ſo ſtrong indeed, that no philologer could examine them all three without believing them to have ſprung from ſome common ſource, which, perhaps, no longer exiſts. There is a ſimilar reaſon, though not quite ſo forcible, for ſuppoſing that both the Gothic and Celtic, though blended with a very different idiom, had the ſame origin with

with the Sanſcreet; and the old Perſian might be added to the ſame family.

"The characters, in which the languages of India were originally written, are called Nagari, from Nagar, *a city*, with the word Deva ſometimes prefixed, becauſe they are believed to have been taught by the Divinity himſelf, who preſcribed the artificial order of them in a voice from heaven. Theſe letters, with no greater variation in their form, by the change of ſtraight lines to curves, or converſely, than the Cufic alphabet has received in its way to India, are ſtill adopted in more than twenty kingdoms and ſtates, from the borders of Caſhgar and Khoten to Rama's Bridge, and from the Seendhu to the river of Siam; nor can I help believing, although the poliſhed and elegant Devanagari may not be ſo ancient as the monumental characters in the caverns of Jaraſandha, that the ſquare Chaldaic letters, in which moſt Hebrew books are copied, were originally the ſame, or derived from the ſame prototype, both with the Indian and Arabian characters: that the Phenician, from which the Greek and Roman alphabets were formed by various changes and inverſions, had a ſimilar origin, there can be

little doubt; and the inſcriptions at Canarah ſeem to be compounded of Nagari and Ethiopic letters, which bear a cloſe relation to each other, both in the mode of writing from the left hand, and in the ſingular manner of connecting the vowels with the conſonants."*

The idea of the Indians, as detailed above, is exactly conformable to that of Plato, and of many Chriſtians, who ſuppoſe the firſt knowledge of letters to have been the reſult of divine inſpiration, or *Deva Nagari*. We may remark, too, that, according to the above deciſion, the Cuthic, or Chaldaic, alphabet is the baſis of all others; and thus again does Indian literature, in a ſtriking manner, corroborate the Hebrew records, the moſt ancient copies of which are written in ſuch a ſimple unadorned character, as inconteſtably proves their high, if not unrivalled, antiquity; in other words, that they were written in the language ſpoken by the Noachidæ. Diodorus Siculus, in fact, actually aſcribes the invention of letters to the Sy-

* Aſiatic Reſearches, vol. i. p. 425.

rians;

rians;* that term being underſtood, in its more extended ſenſe, as often uſed by the ancients, to include Chaldæa and Aſſyria, in particular by Pliny, who refers letters to the Aſſyrians; and the oldeſt Syrian and Phœnician letters are allowed to have been the ſame. That is the peculiar character which Moſes is thought to have uſed in writing the Pentateuch; and it is that in which the Samaritan, the oldeſt extant copy of it, is compoſed.

The Phœnicians, afterwards emigrating under Cadmus, carried letters into Greece; and the ſtriking reſemblance, both in form, ſound, and arrangement, of the latter, with the former, indubitably eſtabliſhes their origin. But, if they were not ſufficient of themſelves to demonſtrate the Oriental origin of letters, an irrefragable proof is derived from the circumſtance of the Greeks having retained, with very little variation, the original names of the letters thus imported into their country from Phœnicia. From Greece, the Pelaſgic colonies carried the Cadmæan letters into Italy; evidenced alſo by the ſame reſembling

* Diodorus Siculus, lib. v. p. 390.

circumſtances

circumſtances of fabrication, arrangement, and ſound.

At what a remote æra, indeed, *letters* were uſed in Aſſyria may be deduced from the account ſent to Ariſtotle, from Babylon, by Calliſthenes, concerning the ſeries of aſtronomical obſervations preſerved by the prieſts in the temple of Belus,* and reaching back for a period of 1903 years from the time of its conqueſt by Alexander. Now Alexander's invaſion of Babylon happened about the year, before Chriſt, 330, which makes the period, when thoſe obſervations commenced, to have been little more than a century after the flood. They were written or engraved on bricks, burnt in the ſun, which was probably the earlieſt rude tablet of the graphiſt, though afterwards he committed his thoughts to the more durable ſubſtance of marble, braſs, and copper. Thus, according to Joſephus, if any confidence can be placed in his report, the Pillars of Seth recorded the prediction of an inundated world; the ſtupendous ſculptures, on what are called the *written mountains* of Arabia, are referred to ages of the

* Porphyr. apud Simplicium in Ariſtot. de Cœlo, p. 123.

moſt

moſt remote antiquity; the triumphs of Seſoſtris were blazoned, in every country which he conquered, on columns that ſeem to have been inſcribed at once with alphabetic and hieroglyphic characters; and the Hebrew decalogue itſelf was engraved on two tables of ſtone. The Indians uſed all theſe methods of conveying their ideas to poſterity. Inſcribed pillars and engraved copper-plates have been diſcovered in every quarter of the empire; but the tablet in moſt general requeſt among them has ever been the dried leaf of the palm-tree, many of which are faſtened together, in long ſlips, and compoſe thoſe books in which the ſublime productions of the Indian muſe have been for ſo many ages preſerved. Diodorus farther informs us, in proof of the early cultivation of Aſſyrian letters, that Semiramis cauſed inſcriptions, in the Syriac character, to be cut deep on the mountains of Bagiſthan, and what, if the account can be depended on, is ſtill more to our purpoſe, that, on her meditated expedition *eaſtward*, ſhe received *letters* written to her from an ancient king of India.*

* Diod. Sic. lib. ii. p. 127, 129.

To return from the conſideration of the object inſcribed to the letter deſignated. — The general conformity of the moſt ancient Sanſcreet character with the ſquare Chaldaic letter, in which moſt Hebrew books are written, has been already noticed. Walton, in the Prolegomena to his Polyglott, has, in innumerable inſtances, remarked the ſtriking ſimilarity between the old Hebrew and Perſic dialect; and, in truth, Sir William Jones, in his Diſſertation on the Perſians, has confirmed all that Walton advanced on the ſubject, by avowing that the ancient Iranian, or Perſian, and the Sanſcreet languages are, in their original, the ſame; " that hundreds of PARSI nouns are pure Sanſcreet, with no other change than ſuch as may be obſerved in the numerous vernacular dialects of India; that very many Perſian imperatives are the roots of Sanſcreet verbs; and that even the *moods* and *tenſes* of the Perſian verb-ſubſtantive, which is the model of all the reſt, are deducible from Sanſcreet by an eaſy and clear analogy."* The preſident farther adds, towards the cloſe of this diſſertation, that the

* Aſiatic Reſearches, vol. ii. p. 51.

language

language of the firſt Perſian empire, which he proves to have been Cuthite, and the latter governed by Cuthite princes, of whom Belus was the head, and the hiſtory of all of whom was carried, with the colonies migrating eaſtward, to India, was the mother of the Sanſcreet, and conſequently of the *Zend* and *Parſi*, as well as of Greek, Latin, and Gothic; that the language of the Aſſyrians was the parent of Chaldaic and Pahlavi; and that the primary Tartarian language, alſo, had been current in the ſame empire.* This having been the caſe, and the fact being proved from an authority ſo high and indiſputable, can we wonder that the hiſtory of the ancient world, in the early poſt-diluvian ages, as detailed by Moſes, ſhould be ſo well known to the ancient Brahmins, who uſed, both in ſpeaking and writing, the ſame language with the patriarchs, and in their ſacred books treaſured up all the traditional dogmas and ſublime theology of the Noachidæ. The allegorizing ſpirit of their deſcendants has, indeed, obſcured its brightneſs and defiled its purity; but, tear off the mythologic veil,

* Aſiatic Reſearches, vol. ii. page 64.

and

and the Hebrew and Indian legiſlators are the ſame.

On attentively contemplating the characters and ſymbolic figures on the ruins of Iſtakar, or Perſepolis, the preſident was enabled to fix with preciſion on the age of that maſſy ſtructure; for, had it been erected while the Hindoo dynaſty in queſtion, called by him Mahabadian and Mahabelian, ſate on the throne of Perſia, it would undoubtedly have been decorated with the ſymbols of the Hindoo mythology, and with figures reſembling thoſe at Salſette and Elephanta; whereas thoſe figures have reference ſolely to the Sabian ſuperſtition, or worſhip of the ſun and planets. Conſequently they muſt have been fabricated in a period *after* the migration of the Brahmins from Perſia, and when its intricate mythology had been purged of its impurities by Zoroaſter, who ſubſtituted in its ſtead the ſimple adoration of the ſolar orb and fire as the pureſt ſymbol of the Deity. The palace and temple of Iſtakar, therefore, cannot be older than about 500 years before Chriſt; and, with reſpect to the inſcriptions engraved on them, he is not of opinion that they are in reality alphabetical letters, but a ſecret and

ſacerdotal

ſacerdotal character, which could only be deciphered by the prieſts themſelves. Among thoſe ruins, however, may be plainly traced a few of the ſquare Chaldaic letters to which he had alluded before, as reſembling the old Devanagari, before the latter were incloſed, as they are now ſeen in India, in *angular frames*.

The relation of the old Perſian with the Indian language being thus clearly proved, and the characters at Canarah having been aſſerted, by the firſt linguiſt of any age, to be compounded of the Nagari and Ethiopic, he proceeds to detail his ſentiments on the connection exiſting between the languages of two countries ſo remote as India and Ethiopia; he aſſerts, that the written Abyſſinian language, which we call Ethiopic, is a dialect of old Chaldean, and ſiſter of Arabic and Hebrew, known with certainty to be ſo, not only from the great multitude of identical words, but (what is a far ſtronger proof) from the ſimilar grammatical arrangement of the ſeveral idioms. It is written, like all the Indian characters, from the left hand to the right, and the vowels are annexed, as in Devanagari,

gari, to the conſonants; with which they form a ſyllabic ſyſtem extremely clear and convenient, but diſpoſed in a leſs artificial order than the ſyſtem of letters now exhibited in the Sanſcreet grammars; whence he conceived it may juſtly be inferred, that the order contrived by Panini or his diſciples is comparatively modern; and he entertained no doubt, from a curſory examination of many old inſcriptions on pillars and in caves, which had been ſent to him from all parts of India, that the Nagari and Ethiopian letters had at firſt a ſimilar form.

On this ſubject it is impoſſible to omit, though before partially cited, the additional evidence of Mr. Halhed, who, in the preface to his Grammar of the Hindoſtani Language, aſſerts the Sanſcreet, or ancient language of India, generally ſpoken before the invaſion of Alexander, to be a language of the moſt venerable and profound antiquity; the grand ſource as well as ſacred repoſitory of Indian literature, and the parent of almoſt every dialect, from the Perſian Gulph to the China Sea. He is of opinion, that the Sanſcreet was, in ancient periods, current not only over ALL INDIA, conſidered in its largeſt extent, but over

over ALL THE ORIENTAL WORLD, and that traces of its original and general diffuſion may ſtill be diſcovered in almoſt every region of Aſia. He was aſtoniſhed to find "the ſimilitude of Sanſcreet words with thoſe of Perſian and Arabic, and even of Latin and Greek; and that not in technical and metaphorical terms, which the mutuation of refined arts and improved manners might have occaſionally introduced, but in the ground-work of language, in monoſyllables, in the names of numbers, and the appellations of ſuch things as would be firſt diſcriminated on the immediate dawn of civilization. The reſemblance which may be obſerved in the characters on the medals and ſignets of various diſtricts of Aſia, the light which they reciprocally reflect upon each other, and the general analogy which they all bear to the ſame grand prototype, afford another ample field for curioſity. The coins of Aſſam, Nepaul, Caſhmeere, and many other kingdoms, are all ſtamped with Sanſcreet characters, and moſtly contain alluſions to the old Sanſcreet mythology. The ſame conformity I have obſerved on the impreſſion of ſeals from Bootan and Thibet. A collateral inference may likewiſe

be deduced from the peculiar arrangement of the Sanſcreet alphabet, ſo very different from that of any other quarter of the world. This extraordinary mode of combination ſtill exiſts in the greateſt part of the Eaſt, from the Indus to Pegu, in dialects now apparently unconnected, and in characters completely diſſimilar; and it affords a forcible argument that they are all derived from the ſame ſource. Another field for ſpeculation preſents itſelf in the names of perſons and places, of titles and dignities, which are open to general notice, and in which, to the fartheſt limits of Aſia, may be found manifeſt traces of the Sanſcreet."*

Thus, deduced from various ſources, and flowing through various channels, the ſtream of argument carries us back to the central point whence we originally ſet out; that of a *primæval language*, univerſally prevalent among the early branches of the family of Noah, and diffuſed with the firſt colonies through the habitable world; but, in the courſe of ages, as new events aroſe, as new governments were formed, and as new ideas

* Halhed's Grammar of the Bengal Language, p. 3.

poured

poured in upon them, undergoing ſuch material alterations and modifications, as ſcarcely to leave any veſtige of its origin remaining, except the radices of ſome principal words in every dialect of it, by which the relation of the *ſecondary* to its primary tongue may be faintly recognized.

I have hitherto attended ſolely to alphabetic writing; to letters as the ſymbols of ſound, not to thoſe of the hieroglyphic kind, which are properly the ſymbols of ideas and objects. The latter appear to have no connection with the Indian alphabet, whatever they may have with that of the old Egyptians or that of the preſent Chineſe; the only people, beſides the Japaneſe and Mexicans, who now make uſe of ſo complicated a ſyſtem of conveying their ideas and perpetuating their ſentiments. On the conſideration, therefore, of that particular claſs of alphabet, there is no occaſion that I ſhould enter in any detail, yet, upon this ſubject, I cannot avoid remarking, that, if the hieroglyphic and ſymbolic character, uſed by the Chineſe, be no proof of their deſcent from the Egyptians, upon which ground M. de Guignes founded his arguments for ſuch

deſcent, by the ſame line of reaſoning, the ſyſtem of the Brahmins, adopted by Sir William Jones himſelf, who inſiſts upon their having originally ſprung from a Hindoo ſtock, is, — I ſpeak with reſpectful ſubmiſſion to his genius and learning, — very conſiderably weakened, if not wholly ſubverted; for, is it poſſible, that, during the gradual migration of their tribes eaſtward, and at that early period, when the Sanſcreet flouriſhed in its full vigour, that they ſhould have loſt all remembrance of their native tongue, either the vulgar Sanſcreet dialect, or the elegant and poliſhed Devanagari; and ſhould have adopted, in the room of an alphabet already elaborately formed, and juſtly diſtinguiſhed for its comprehenſive utility, its refined correctneſs, and the beauty of its arrangement, a vague and prolix ſyſtem of ſymbolic characters compoſed of the forms or detached parts of the forms of animals and objects, inconceivably intricate in their combinations, and infinitely diverſified in their number and ſignification? I am aware that the fancy of ſome learned men has endeavoured to fix a hieroglyphic ſtamp on many letters of the Hebrew, Arabian, and other Eaſtern alphabets;

bets; as, for inſtance, that in the Aleph, which ſignifies an ox in Phœnician, is repreſented the head of the ox; the Beth, which, in the Hebrew, imports a houſe, the figure of ſuch houſes as are to this day uſed in Paleſtine-Syria, the foundation, the wall, and the flat roof; Gimel, the camel, whoſe tall figure, and long and curved neck, the form of that letter appears to repreſent; and, in the letters of the Arabian alphabet, the arms and implements of the tent of the ancient Arab-ſhepherd, as his drinking-cup, his hunting-horn, his battle-axe, &c. all which ſuggeſtions, though probably not entirely without ſome foundation in truth, afford but a weak baſis for the hypotheſis intended to be erected upon it.

With reſpect to the Chineſe themſelves, once ſo proudly vaunted as the maſters of Aſiatic ſcience, were it not for the high reſpect, in every acceptation of the word, due from me to the deciſion of ſo diſtinguiſhed a character, to whom the hiſtory and literature of Aſia were ſo familiarly known, I ſhould be inclined, on this ſubject, ſtill to adhere to the ſyſtem of M. De Pauw, who ſtrenuouſly contends that the Chineſe

are the lineal offspring of the ancient Tartar race, who deſcended, in wild clans, from the ſteeps of Imaus, into the fertile plains of this benigner region, and conſider the great reſemblance inſtanced by himſelf, in the *thin beards*, *ſmall eyes*, and *flat noſes*, of the two nations, as evidence nearly incontrovertible. Another important objection ſeems to offer itſelf in the total difference of the ſtructure of the two languages of China and India; the former conſiſting principally of *monoſyllables*, and that of the Brahmins abounding with words of *many ſyllables*, and delighting in compound epithets that often run through half a page.

To the preceding general remarks on Aſiatic languages, I ſhall now ſubjoin ſuch particulars, concerning the Sanſcreet alphabet and language, as may be ſufficient to afford the reader a proper conception of them without entering into the weariſome and diſguſting minuteneſs of a grammatical diſquiſition. The term Sanſcreet, according to Mr. Wilkins, is compounded of the prepoſition *ſan*, ſignifying completion, and *ſkrita*, finiſhed. It means, therefore, a language exquiſitely refined and poliſhed; but this

this muſt have been the effect of the unwearied diligence, and predilection for their native tongue, of the Brahmins; for, it could not have been ſo in the firſt inſtance, when it bore a near reſemblance to the ſquare unadorned Chaldaic character. It is alſo, we have obſerved, a very compound language, and delights in polyſyllables.

The moſt ancient Phœnician letters, introduced into Greece by Cadmus, were but ſixteen in number; about the period of the Trojan war, four more letters were added by Palamedes; and, many years after, Simonides, by adding four others, completed the Greek alphabet. The amount of the Egyptian alphabet, according to Plutarch, was twenty-five; and that of the Hebrew is twenty-two. But the Sanſcreet alphabet apparently exceeds, in the number of its letters, all that ever were formed, conſiſting of no leſs than fifty. Of theſe, thirty-four are conſonants, and the remaining ſixteen are vowels. The Brahmins glory in this uncommon copiouſneſs of the Sanſcreet alphabet; but, after all, there is no ſolid reaſon for this triumph: of their numerous conſonants nearly one half are ſaid to carry combined

ſounds, and ſix of their vowels are merely the correſpondent long ones to as many that are ſhort; which reduces it nearly to a level with the other alphabets of the ancient world. Copious and nervous as the Sanſcreet is allowed to be, the ſtyle of the beſt authors is ſtill extremely conciſe, ſometimes even to obſcurity; hence the innumerable ſaſtras and commentaries on all their ſacred and ſcientific books; and hence, it may juſtly be added, the unbounded influence of the Brahmins, who explain them as they pleaſe to their ignorant, but devoted, followers.

The four VEDAS, it is well known, are the great ſtore-houſe of Sanſcreet learning. They are ſaid originally to have been but *three* in number, the fourth being ſuppoſed to have been compoſed in a period many centuries later than the other three. The argument advanced on this ſubject, in the Aſiatic Reſearches, is two-fold. The firſt ariſes from the very ſingular circumſtance of only *three Vedas* having been mentioned in the moſt ancient and venerable of the Hindoo writers; and the names of thoſe *three Vedas* occur in their proper order in the compound-word *Rigyajuſhama*, that is to ſay, the

*Reig*

*Reig* Veda, the *Yajuſh* Veda, and the *Saman* Veda. The ſecond argument is drawn from the manifeſt difference in the ſtyle between the fourth, or *Atharvan* Veda, and the three before named. That of the latter is now grown ſo obſolete as hardly to be intelligible to the Brahmins of Benares, and to appear almoſt a different dialect of the Sanſcreet, while that of the former is comparatively modern, and may be eaſily read, even by a learner of that ſacred language, without the aid of a dictionary.*

The date of theſe venerable books goes ſo far back into antiquity, and that date is ſo well authenticated, that, with every reſpectful deference to the opinions of thoſe worthy and pious writers who contend that ALPHABETIC LETTERS originated with Moſes, when he received from God the *Table of the Decalogue*, I am unable to ſubſcribe to that opinion, though I moſt readily admit the language, in which that decalogue was written, to have been the oldeſt in the world, and probably imparted to man by inſpiration, but at a much *earlier* period. I am bound faithfully to repreſent,

* Aſiatic Reſearches, vol. i. p. 346, 347.

ſo

ſo far as yet unfolded, the Hindoo ſciences; and, on this ſubject, I muſt fortify myſelf with the obſervation of Sir William Jones, whom nobody will accuſe, any more than, I truſt, myſelf, of intended diſreſpect to the high character and functions of the Hebrew legiſlator, but who has declared it to be his firm belief, ariſing from both internal and external evidence, that the three prior Vedas are above three thouſand years old;* and, to the YAJUSH VEDA, in particular, he aſſigns the poſſible æra of 1580 years before the birth of Chriſt, which is nine years prior to the birth of Moſes, and ninety before Moſes departed from Egypt with the Iſraelites.† The firſt promulgation of the Inſtitutes of Menu, he thinks, was coeval with the firſt monarchies eſtabliſhed in Egypt or Aſia; and he remarks a ſtrong reſemblance of them, in point of ſtyle and grammatical conſtruction, with the VEDAS themſelves. I ſhall not enter farther into the queſtion, but leave every man to form his

* On the Antiquity of the Indian Zodiac, in Aſiatic Reſearches, vol. iii. p. 289.

† Ibid, vol. v. p. 4.

own

own opinion on the ſubject; and proceed to the conſideration of what, by the induſtry of our learned countrymen, has been gleaned from thoſe precious fragments of ancient Indian literature.

HAVING

HAVING already, in various parts of theſe volumes and the Indian hiſtory, treated concerning many of the arts and ſciences anciently moſt cultivated in Hindoſtan; in particular their ſtyle of ARCHITECTURE, when diſcourſing on the pagodas; their ſkill in SCULPTURE, when examining the figures of Elephanta; having given the entire hiſtory of their progreſs in NAVIGATION, in an expreſs diſſertation on that ſubject, ſo intereſting to Britons, in the 6th volume of theſe Antiquities; having, alſo, in the Commercial Diſſertation, conſidered their MANUFACTURES, and the arts more immediately connected with the beautiful productions of the Indian loom; I conceive my duty to the public, on this point, already in a great degree fulfilled. Their literature and ſciences open an immenſe field for diſcuſſion, and materials for the full inveſtigation of them are ſtill among the Indian *deſiderata*. I requeſt, therefore, in

in a particular manner, the exertion of the reader's candour in peruſing the following Diſſertation, as the mine of Sanſcreet literature has been hitherto but little explored; though I rejoice to hear there are riſing in India many able and willing candidates for that arduous employ.

## GENERAL PHYSICS.

In all retroſpects upon Indian ſcience and hiſtory, it will be obſerved that an uncommon degree of natural hiſtory is blended with it; and, in fact, their mythology is a compound of phyſics and metaphyſics. Extenſive, therefore, as have already been our diſquiſitions on that mythology, occaſional references to it can with difficulty be avoided, becauſe, in fact, there is ſcarcely an art or ſcience which has not its reſpective *numen* preſiding over it, who is ſuppoſed to direct the labours of the artiſt and the reſearches of the ſcholar. Even their theological ſpeculations are, in a great degree, founded upon what they obſerved paſſing in the phyſical world. They ſaw a direct tendency in nature

to

to diſſolution; they therefore fabricated a *deſtroying deity*; but, as they alſo obſerved a power in nature capable of counteracting that tendency, the ſame fertile imagination, in conſequence, conceived a *preſerving deity*, his enemy and antagoniſt. Hence, probably, the true ſource of that rooted enmity immemorially ſubſiſting between the followers of Veeſhnu and Seeva. Every element is, in fact, a perſonified God; the minerals of the earth, and the corals of the ocean, have their guardian genii; and a ſubtle ſpirit pervades and preſides over even the humbleſt tribes of vegetation.

Much as hath already been ſaid on the ſubject, yet, as it is ever a prominent object in Oriental literary reſearch, I commence my inquiries with renewed inveſtigations and ſummary retroſpect upon their ſyſtem of

## ASTRONOMY.

I have ventured, in various parts of the two works before the public, to give a date to the Brahmin ſyſtem of Aſtronomy nearly coeval with the flood; becauſe, in whatever ab-

ab-original country their anceſtors were ſettled, whether in Chaldæa or Iran, that ſcience was abſolutely neceſſary to a race of men who ſeem, from the earlieſt times, in a peculiar manner to have devoted themſelves to agricultural concerns; to a race not "fleſhed in blood," or wandering wild over immenſe deſerts, like the ſavage tribes of Scythia, but who, from their origin, ſeem to have aſſociated in affectionate tribes, and been united by the ſtricteſt bonds of domeſtic intercourſe; a race who, for the moſt part, exiſt entirely upon the grains and fruits which the cultivated earth abundantly produces, and therefore muſt of conſequence be ſuppoſed intimately acquainted with the *times* and *ſeaſons*, the reſult of aſtronomical obſervation, moſt proper for that cultivation. I conſidered that ſyſtem as containing a conſiderable proportion of ante-diluvian aſtronomy, concerning which, though all that can be advanced muſt be allowed to be nothing better than ingenious conjecture, yet, ſince the Indian nation ſeem always to have adhered ſo cloſely together as a people, and ſince Budha is ſaid to have married ILA, Noah's daughter, it is moſt probable, that, among them, the remains of

the

the ante-diluvian ſciences flouriſhed in a more perfect degree than among the other widely-diſperſed branches of his family.

I have alſo ſtrenuouſly contended for the exiſtence of an older ſphere, containing certain obſolete aſteriſms at preſent not to be found in the catalogue of modern conſtellations, as the Phalæna, the *wandering moth of night*; the Succoth Benoth, or *hen and chickens*; the Oblation, and others, alluded to by Mr. Coſtard in his Chaldæan Aſtronomy.*

The devotion of the Indians to this favourite ſcience, in the earlieſt periods, is farther proved by its intimate connection with the hiſtory of their moſt ancient ſovereigns, who ſeem all to have been a kind of planetary deities; and the reign of the king and the revolution of the orb, as has often been before obſerved in theſe pages, to have been perpetually confounded in their wild mythological records. Hence I was induced to conſider the ſphere itſelf as formed by the united wiſdom of the Patriarchs, exhibiting to us a rich volume of hieroglyphics, (the

* Coſtard on the Chaldæan Aſtronomy, p. 67.

only

only mode of deſignating objects and ideas in thoſe remote æras,) having an immediate alluſion to the characters and events of the greateſt importance to mankind; and conſequently in a high degree illuſtrative of the hiſtory of man in the infancy of human government. Aſtronomy, indeed, could ſcarcely fail of flouriſhing in the higheſt vigour during the remoteſt periods in India as well as throughout all Aſia, in conſequence of the decided patronage afforded that ſcience by Eaſtern ſovereigns. From the foundation of their reſpective empires, the kings of Chaldæa and India cheriſhed and entertained in their palaces the wiſe men and philoſophers of their realms; and it muſt be owned, in return, that aſtronomical prieſts have in all ages been found too ſuſceptible of royal favour, and have been but too grateful in repaying their kindneſs, by flattering them with titles and honours more than mortal.

With reſpect to the ancient Indian aſtronomy, it is a vaſt ſyſtem of *cycles* aſcending by no very regular gradations from their SOOKLA-PAKSHA and CREESHNA-PAKSHA, or the *dark* and *bright halves* of the moon's orb;

that is to ſay, in plain Engliſh, a *fortnight*, to millions of revolving years, lunar and ſolar, infinitely diverſified, and alternately calculated by the rules of terreſtrial and celeſtial computation. It is an endleſs labyrinth, to which the Brahmins themſelves, from the lapſe of time and the decay of ſcience among them, ſeem at preſent to poſſeſs but a very uncertain clue; but, through which, as authentic information has hitherto arrived in Europe, we have already in great part toiled in the firſt volume of Indian hiſtory.

Whoſoever will caſt his eye upon a Hindoo ſacred calendar will perceive a moſt deciſive proof, how inceſſantly, in the moſt ancient periods, the Brahmin prieſts muſt have watched the motions of the heavenly bodies. All the long train of faſts and feſtivals rigidly preſcribed that ſuperſtitious nation, in the VEDAS and other ſacred books, is regulated by the poſition of particular planets in the heavens, and the conſequent benevolent or malignant aſpects imputed to them by the mad votaries of aſtrological ſcience, which then held in chains the wiſeſt and moſt virtuous of mankind.

It will be alſo remembered, that the obligation to obſerve theſe rigid faſts and theſe ever-returning feſtivals was of no ſlight nature. The tremendous ſuperſtition that enjoined them on the timid Indian was implanted in his inmoſt ſoul, or rather was inwoven with his very conſtitution, engroſſes the earlieſt habits of his life, and continues its influence over his lateſt. For even the moſt caſual omiſſion of the minutiæ of that holy ritual, he hears the thunder of Seeva rolling to overwhelm him; or, what is not leſs dreaded than the wrath of heaven, he ſees himſelf reduced to the forlorn condition of a Chandelah, or outcaſt, to whom the elements themſelves are hoſtile, and for whom neither heaven nor earth have any place of ſafety or repoſe. The baneful effects of this entire devotion of the Hindoos to the ceremonious injunctions of their religion are often recorded in the page of their hiſtory. Undertakings of the higheſt national importance have been abandoned, for ſome idle punctilio of this kind, at the inſtant when ſucceſs ſeemed indubitable; and the Mahommedan generals taking advantage of ſome, to them auſpi-

cious, day, when the Hindoo religion forbids the uſe of arms, have marched unreſiſted into their moſt wealthy and beſt fortified cities. Sonnerat, in particular, expreſſly aſſerts this fact concerning the AIDU POOJA, or *feaſt of arms*, which falls in October, and is holden ſo ſacred, that, on the day of its celebration, the Hindoo will not take up arms to defend himſelf. He adds, that the general of the Soobah of the Deccan, who beſieged Gingy, choſe that day for the aſſault, being perſuaded the garriſon would not defend the place on that day, and he actually entered the garriſon without meeting the leaſt reſiſtance.*

We have ſeen in Vol. VI. in what very remote periods the Indians had navigated the great ocean, ſince, in the "Inſtitutes of Menu," written twelve hundred years before Chriſt, proviſion is made for loſſes incurred by adventures at ſea; and the circumſtance of its being thus particularly mentioned, in a part of the grand legiſlative code, proves the antiquity of the commerce as well as the danger attending it. Now it is impoſſible for navigation to be carried on, to any extent,

* Sonnerat's Voyages, vol. i. p. 135, Calcutta edition.

without

without a knowledge of aſtronomical ſcience. A correct knowledge of the poſition in the heavens of certain ſtars, uncommonly brilliant, with reſpect to the earth, was abſolutely neceſſary to the mariner in directing the courſe of his veſſel over the trackleſs ocean, whether to the ſhores of Egypt or Arabia, which countries, by the aid of the monſoons, they ſeem immemorially to have viſited; the former, for the purpoſe of vending to that luxurious people the rich commodities of India; the latter, for thoſe coſtly ſpices and aromatics which were foreign to their own delicious climate.

In farther proof of their early proficiency in aſtronomy, or rather that many intereſting branches of that ſcience originated among them, may be urged, what has already been intimated in the firſt volume of the Indian hiſtory, the circumſtance of their being in poſſeſſion of a table of LUNAR MANSIONS, in number twenty-eight, a mode of dividing the heavens unknown to the Greeks, and which, therefore, could not be borrowed from them. All the names of the aſteriſms, and all books on this ſubject, are written in pure Sanſcreet, and conſe-

quently muſt have been long anterior to the age of Alexander, when its purity had declined. Their mode of deſignating theſe lunar manſions is by objects and animals perfectly novel and original, and in the Hindoo ſtyle; Indian conques, ſaffron, tabors, heads of antelopes, gems, pearls, &c. The planets in their ſyſtem, we have ſeen, are all perſonified, and inveſted with appropriate dreſſes and ſymbols, and are repreſented riding on animals, characteriſtic of their ſlow or rapid revolution in the heavens. Thus, it has been obſerved, the Sun is mounted on a lion, to mark the ardour and fierceneſs of his beam; the Moon on an antelope, to denote the rapidity of her progreſs; Mercury on a hawk, a bird whoſe ſoaring wing explores the higheſt region of æther, while its undazzled eye gazes ſtedfaſtly on the orb of day, ſhining in meridian ſplendour; Mars, armed with a ſabre, is borne on a war-horſe through the heavens; Venus, the radiant harbinger as well of the opening as of the cloſing day, is mounted on a camel, an animal patient and indefatigable, that purſues his unwearied journey over trackleſs deſerts and burning ſands, early and late, before the

ſun

# SANI, OR THE PLANET SATURN,

encircled with A RING, formed of SERPENTS.

*To the Rev.d Stephen Demainbray, A.M. the above Plate, illustrative of his favourite Science, in memory of early Friendship, is inscribed by*

*T. M.*

ſun riſes, and after it has declined; Jupiter rides on a boar, a ſlow and ſluggiſh animal, the emblem of his tedious revolution; and Saturn meaſures round the circumference of his vaſt orbit exalted on the back of a heavy unwieldy elephant. But of Saturn, or SANI, as in the old Sanſcreet books he is denominated, there occurs in that ſyſtem a very curious circumſtance not mentioned before, and which deſerves the marked attention of the aſtronomical ſtudent.

Sani has already been deſcribed, from Sanſcreet authorities, as a malignant planet, and he is metaphorically repreſented as the *ſlow-moving child of Surya, the Sun.* The Indians entertain dreadful apprehenſions concerning him, and offer to him conciliatory prayers. He is depicted of a blue colour; he has four arms; he is mounted upon a raven; and is ſurrounded by two ſerpents, whoſe intertwining bodies form a circle round him.*

I have already intimated in a former volume, that the *circle* formed around SANI, by the intertwining ſerpents, was probably intended to denote his RING. I have ſince had

* Sonnerat's Voyages, vol. i. p. 63.

the figure engraved for the reader's inſpection and deciſion. It is impoſſible to aſcertain the exact age of the pictured image in the pagoda from which the portrait was taken; but probably both are of a very remote age; for, the Indian pagodas are not fabrications of yeſterday, nor in their conceptions and deſigns are they given to frequent viciſſitude. Now, if Sani were thus deſignated in very ancient periods, the fact proves that they muſt, by what means can ſcarcely be conjectured, have diſcovered the phenomenon of his RING; for, what beſides could that ſerpentile oval, encloſing the body of Sani, be intended to repreſent? That phenomenon, however, was not known in Europe till about the year 1628, when Galileo, with the firſt perfect teleſcope, diſcovered what he conceived to be two ſtars at the extreme parts of the planet; but which, in reality, proved to be the ANSÆ of that ring, the actual exiſtence of which was afterwards demonſtrated by Huygens and ſucceeding aſtronomers. The circumſtance is not the leaſt wonderful of thoſe that occur in the diſcuſſion of Indian antiquities and literature. I have ſtated the fact, and engraved the image;

image; I leave to abler judges the taſk of deciſion.

There is no occaſion, however, to trouble the reader with farther *conjectures* on the high proficiency in aſtronomy of the ancient Brahmins, ſince indubitable proofs of their rapid advance in that ſcience are to be found in the moſt ancient pagodas of Hindoſtan, all placed with ſuch aſtronomical preciſion, as with their four ſides conſtantly to face the four cardinal points. Theſe were examined and found to be exactly thus ſituated by M. Gentil; and in this circumſtance they reſemble the pyramids of Egypt, probably the work of the ſame artificers; for, a variety of facts tends to ſtrengthen the hypotheſis, that Egypt, or *Miſra-ſthan*, was colonized by the firſt Indians. On the roofs too and walls of many of theſe pagodas are deeply engraved the zodiacal aſteriſms. Various ſets of their aſtronomical tables, of a very ancient date, imported into Europe by learned foreigners, have been deliberately inveſtigated, and proved to give the true aſpect of the heavens, and poſition of the ſtars, about the period they were formed. The tables of *Tirvalore*, in particular, brought to Europe and publiſhed by

by M. Gentil, merit the moſt attentive conſideration. For, the grand conjunction which thoſe tables tend directly to eſtabliſh, of all the planets, except Venus, in the firſt degree of MESHA, or ARIES, with which their celebrated æra of the CALI YUG commenced, has been found, upon the calculation of the ableſt aſtronomers of Europe, to be true, with the addition of an eclipſe of the moon, from which their aſtronomical time is dated.* On an actual retroſpective ſurvey of the heavens, it appears that Jupiter and Mercury were then in the ſame degree of the ecliptic; that Mars was diſtant about eight degrees, and Saturn ſeventeen; and it reſults from that ſurvey, that, at the time of the date given by the Brahmins to the commencement of the Cali Yug, they ſaw thoſe planets ſucceſſively diſengage themſelves from the *rays of the ſun*. This is the repreſentation of M. Bailly, that profound and accurate, though, in points of theology, *ſceptical*, aſtronomer; confirmed, in every inſtance, by the ſtill more elaborate calculations of the

* Le Gentil, Voy. tom. i. p. 133. Bailly's Aſtronomie Ind. p. 110.

learned

learned Mr. Playfair, profeſſor of aſtronomy at Edinburgh. While the romantic and extravagant boaſts of the Brahmin chronologers, in reſpect to the epoch of creation, remained unrefuted, I *heſitated* to admit this deciſion of M. Bailly as valid evidence; but the nature of their wild chimeras in aſtronomy having been ſince frequently explained in the Aſiatic Reſearches, and it being now well underſtood by *what kind of years* their calculations were regulated, I am willing to give every due credit to the laborious and learned reſearches of that profound aſtronomer, ſacrificed to the guillotine by his perfidious countrymen. It is a circumſtance not leſs aſtoniſhing, than this its early maturity in Hindoſtan, that ſo little genuine aſtronomy ſhould at this day flouriſh in that degenerate country; and that the modern race of Brahmins ſhould regulate their aſtronomical ſtudies by the *rules*, without knowing the *principles*, that guided their anceſtors in cultivating this ſublime branch of ancient literature.*

* See Mr. Playfair on the Brahmin Aſtronomy, in Philoſoph. Tranſact. Edinburgh. vol. ii. p. 136.

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The epoch of this celebrated æra of the Cali Yug, which, according to M. Bailly, anſwers to midnight between the 17th and 18th of February of the year 3102 before Chriſt, thus ſcientifically adjuſted by learned Europeans, may be admitted, becauſe within the limits of the chronology of the ſacred books that ought to regulate our belief in theſe matters; for, the firſt of February, 1790, exactly correſponded to the year 4891 of the Hindoo period of the Cali Yug; conſequently above a thouſand years within the Moſaic æra of the world. But there is no neceſſity for our allowing a ſimilar latitude to wild ſpeculations in that ſcience which directly militate againſt it; and this is evidently the caſe when theſe tables refer us to obſervations pretended to be made when, according to them, the ſolar year conſiſted of 365 days, *ſix* hours, twelve minutes, and thirty ſeconds. In the time of Hipparchus, near two thouſand years ago, that year was computed at 365 days, *five* hours, forty-five minutes, and twelve ſeconds. From Hipparchus, to the age of Ptolemy, the alteration in the length of the year was noted by the latter aſtronomer; and, from Ptolemy to

our

our own, the decreaſe has been ſtill more regularly obſerved. By European aſtronomers of the preſent day, it is reckoned at 365 days, five hours, forty-eight minutes, and fifty-five ſeconds. "Hence it would appear, (ſays an ingenious modern writer,) that there is a gradual decreaſe in the length of the year; and, if theſe calculations can be relied upon," which they certainly cannot, "we muſt conclude that the earth approaches the ſun; that its revolution is thereby ſhortened; and that the tables of the Brahmins, or at leaſt the obſervations that fixed the length of their year, muſt have been made 7300 years ago."* Retrogreſſive calculations have been probably made to ſuit that diſtant period, but certainly not actual obſervations; ſince it aſcends far beyond even the Septuagint date of the creation, which, as the moſt extended, I ſet out with adopting; and the poſſibility of the advantage of the ſcientific exertions of the ante-diluvians; which, to obviate the objections of the ſceptical philoſopher, I have ever been willing in a certain degree to admit of, in the exten-

* Sketches of the Hindoos, p. 216, 1ſt edition.

ſive

ſive ſurvey taken, in theſe volumes, of the literature of their earlieſt poſt-diluvian deſcendants.

While I am bold to affirm that theſe are the chimeras of aſtronomers, I will not ſhrink from my duty as the hiſtorian of the literature of India, by preſenting the reader with an account of ſome actual obſervations, made in the moſt remote æras, that can ſcarcely fail of exciting aſtoniſhment, and *may* ſtrike ſome prejudiced minds with diſguſt, as if on this ſubject, not leſs than the date of alphabetic writing in India, I was determined to oppoſe all eſtabliſhed opinions concerning the origin and the progreſſive advance of ſcience in the Eaſt; but, *magna eſt veritas, et prævalebit.* The evidence is of high authority, and deſerves every credit; and let it be remembered that we are diſcuſſing the literature of one of the higheſt and moſt illuſtrious branches of the family of the father of the renovated world.

Paſſing by the age of Greek fable, Atlas, Chiron, and Muſæus, the mere offspring of imagination, the oldeſt authenticated Greek obſervations of the heavens extend no farther back

back than the age of Thales, about 600 years before Chriſt; and theſe may be well ſuppoſed, in that infancy of the ſcience, extremely rude. Inſtructed in Egypt, that prince of philoſophers taught the Greeks the true time of the EQUINOX and the exact length of the tropical year. Anaximander flouriſhed about fifty years afterwards, and is ſaid to have firſt made that important diſcovery, the OBLIQUITY OF THE ECLIPTIC. But all this extent of ſcience muſt have been well known to the Brahmins at leaſt 600 years before; for, the Indian annals, made with the requiſite preciſion, record an actual obſervation, that abſolutely fixes the exact places of the ſolſtitial points and the equinoctial colures, in the twelfth century before Chriſt; and it was by this obſervation that Sir William Jones was enabled to fix the age of Menu's Inſtitutes to the ſame century.*

From a text of Paraſara, an ancient Indian aſtronomer, which records the obſervation, it appears, that, between the period when he flouriſhed, and Varaha, a more re-

* Sir William Jones in Aſiatic Reſearches, vol. ii. p. 393, London, quarto edition.

cent

cent aſtronomer, who confirms it, and lived in the year 499 of the Chriſtian æra, the equinox had gone back 23° 20′; that is to ſay, the ſouthern ſolſtice, which, in Paraſara's time, was in the middle of ASLESHA, a lunar manſion, denoting the ſtars in the face and mane of the Lion; and the northern in the firſt degree of DHANISHTHA, a lunar manſion, meaning the ſtars in the arm of Aquarius; was found, in Varaha's age, to be, the former in the firſt degree of CARCATA (Cancer), and the latter in the firſt of MACARA (Capricorn); — in other words, about 1680 years had elapſed; and ſince, in demonſtrative proof of all this, Sir William Jones has taken the trouble to preſent us both with the original Sanſcreet text, and an exact literal tranſlation of that text, not the leaſt doubt can be entertained of the truth of a ſtatement which does ſo much honour to the learning and induſtry of the ancient Hindoo race.

The doctrine of the ſeven revolving ſpheres through which the tranſmigrating ſoul muſt migrate before it can reach the abode of the ſupreme Brahme; the circular dance of the Brahmins, recorded by Lucian, and called,

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in India, the RAAS JATTRA, or ſacred dance, imitating the revolution of the planets round the ſun; the poſitive aſſertion of Sir William Jones, that the works of the ſage ACHARYA include a ſyſtem of the univerſe founded on the principle of *attraction*, and the *central* poſition of that orb; and, alſo, that the names of the planets and zodiacal ſtars are found in the oldeſt Indian records;* afford abundant proof, that, if the ancient Indians were not abſolutely the inventors of aſtronomy, they at leaſt had arrived in the earlieſt poſt-diluvian periods at an unexampled point of excellence in that wonderful ſcience. But having, in the firſt volume of the hiſtory, when conſidering the Indian ſphere and zodiac, entered very much at large into this ſubject; having ſhewn the ſtriking ſimilitude between the Chaldæan and Indian aſtronomical ſyſtem, at leaſt in its great outlines; and having in fact demonſtrated that their ſpheres were the ſame, with a trifling difference only, in the deſignation of certain of the aſteriſms; it is unneceſſary for me to dwell longer on this head of Indian litera-

* Aſiatic Reſearches, vol. i. p. 430.

ture. I therefore paſs on to a ſubject very deeply connected with it, and in any advanced ſtate of the ſcience abſolutely neceſſary to it,

## GEOMETRY.

On the commencement of the Geographical Diſſertation,* I had occaſion to obſerve that the ſcience of Geometry was, in all probability, invented in India. One reaſon urged by me in ſupport of the obſervation, but by no means the ſtrongeſt that may be adduced, was the frequent and wide overflowing of the great Indian rivers, not only of thoſe regions where vaſt Deltas have been formed at their place of ingreſs into the ſea, but of thoſe in the more northern latitudes of Upper Hindoſtan, whoſe rapid and deſolating current, ruſhing down from the Hindoo Caucaſus, bore away the boundaries of the land they were meant to divide, and confounded the property of the natives. The Nile over-

* See Indian Antiquities, vol. i. p. 1.

ſpreads

ſpreads Egypt with a gentle and gradual advance of its fertilizing waters, but the rapidity and overwhelming violence of a torrent pouring down from Paropamiſus, the Gauts, and other high mountains in various regions of India, would not fail to beat down and obliterate every barrier which man, in the infancy of agriculture, could erect againſt its rage; and, as the firſt ſettlements of his race doubtleſs took place in the Higher Aſia, and neareſt the region where the ark reſted, I conſider the long-conteſted queſtion, whether the Indians or the Egyptians were the firſt inventors of this ſcience, to be in conſequence very much in favour of the former. But a ſtronger and ſtill more concluſive argument, in favour of the latter poſition, ſeems to be the impoſſibility of otherwiſe exactly proportioning the rate after which every individual zemindar, or land-holder, was equally in the moſt early and the moſt recent periods of the Indian empire aſſeſſed, and which univerſally depended upon the quantity of ground poſſeſſed and cultivated by him. The ancient claſſical writers aſſert, that the tax paid to the government in India was the *fourth* part of the produce of the

ſoil; but, upon Sanſcreet authority, near two thouſand years old, I can aſſert that it was at that period, and probably previouſly to it, the *ſixth* part only of that produce; for, to that purport, in the Sacontala, does the Emperor Duſhmanta deciſively expreſs himſelf.* Similar accounts, I am aware, may be found in Herodotus and Diodorus Siculus concerning the mode of collecting the tribute in Egypt; but, throughout this work, both Egyptians and Ethiopians are conſidered as an emigrated race, originally Indians, and to the parent country, therefore, when cuſtoms are ſo ſtrikingly ſimilar, the honour of invention cannot with juſtice be denied.

As the Egyptians had with immenſe labour dug the vaſt lake Mœris, and other ample reſervoirs for the waters of the retiring Nile againſt the period of drought; ſo alſo have the ancient Indians formed, by the niceſt rules of geometrical proportion, in every quarter of their empire that required it, *ſquare* tanks of prodigious magnitude for the ſame purpoſe. In their ſtupendous efforts in architecture particularly, the triangu-

* Sacontala, act v. p. 53.

lar

lar pyramid, the circle, the ſquare, and the cone, for ever occur in the internal or external parts of their temples. And by what means was it poſſible for ſuch ponderous ſtones, as, for inſtance, thoſe that crown the ſummit of the grand portal of Chillambrum, forty feet long, and five broad, to be raiſed to the altitude of one hundred and twenty-two feet, but by the aid of geometry joined to mechanics? From what other ſource has it ariſen that the amazing coloſſal carved work and images in Salſette and Elephanta, of ſtupendous antiquity, are executed according to the rules of ſuch juſt proportion as they are repreſented to be by Mr. Hunter and others who have accurately examined them? and that ſuch lofty columns, richly adorned with mythological ſculptures, are ſeen elevated to a vaſt height in every province of Hindoſtan? ' In reſpect to aſtronomy, it was abſolutely neceſſary that they ſhould be poſſeſſed of a very ample portion of geometrical ſkill to fix ſo preciſely, as they have, the poſition of their pagodas, in order that their four ſides ſhould face the four cardinal points; pagodas, many of them erected in the remoteſt periods of their

empire; and to form thoſe ancient aſtronomical tables mentioned above which have ſo highly excited the aſtoniſhment of the literati of Europe.

It was long ſuppoſed that the ten numerical characters of ARITHMETIC were the invention of the Arabians: that nation, however, only introduced them into Europe, and confeſs themſelves obliged to the Indians for them, among whom they were immemorially uſed. A nation, indeed, ſo devoted to commerce, as the Indians, could not carry on their concerns without this aid; and, while the poliſhed governments of Rome and Greece were awkwardly uſing, for the purpoſe of enumeration, the letters of the alphabet, this wiſe and ingenious people, by the invention of the figures in queſtion, were performing, with the utmoſt facility, the moſt complex calculations. Indeed, their adroitneſs in this reſpect has often been the admiration of foreigners, as a Banyan merchant, by the operation of memory only, and without pen or paper, is ſaid to ſum up his accounts with the greateſt accuracy; and even the vulgar Indian, with his fingers, drawing the ſymbols of arithmetic in the

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ſand, will go, with eaſe and celerity, through the moſt intricate numerical details. The art of ready computation was eſſentially neceſſary where the property was ſo various, where the annual revenues both of the ſovereign and of many individuals among his ſubjects were ſo immenſe, and where ſuch accuracy was neceſſary with reſpect to the *number*, *weight*, and *meaſure*, of the commodities trafficked in. Connected with geometry and arithmetic is the invention of the *balance*, a ſymbol early exalted to the zodiac by the Brahmin aſtronomers, and in all likelihood alſo the product of the genius of this commercial people. The advance of the ancient Indians in mechanic ſcience of every kind muſt, for the reaſons above-mentioned, have been very early and very great; and, in fact, like the venerable fabricators of Stonehenge and Abury, they ſeem to have been in poſſeſſion of ſome ſecrets in that ſcience which have not been tranſmitted to their poſterity.

The ſame ſpecies of injuſtice that would rob them of the honour of inventing the decimal ſcale, the Indians appear to have ſuffered in regard to ALGEBRA, which,

though long attributed to Arabian ingenuity, is the undoubted fruit of Indian genius; for, various treatiſes on this uſeful ſcience, as well as geometry, are alluded to in Sir William Jones's Diſſertation (the laſt which he wrote) on the Philoſophy of India;* and, being in Sanſcreet, they muſt neceſſarily be of an age far anterior to that of Archimedes, the great practical geometrician of Greece. With reſpect to the ſubſtance of theſe treatiſes, that is ſtill among the Indian deſiderata; though probably this will not long be the caſe, if Mr. Davis ſhould fortunately have health and leiſure to purſue the peculiar line of ſtudy which he has choſen for his province, and by which he has already been enabled ſo ſucceſsfully to elucidate the abſtruſe mathematical ſciences of the Brahmins.

The great advance, alſo, which we ſhall hereafter ſee the ancient Indians had made in muſic, a ſcience in which ſounds are expreſſed by lines or chords accurately divided and arranged according to geometrical rules, exhibits an additional proof of their progreſs in this

* Aſiatic Reſearches, vol. iv. p. 178, London, quarto edit.

ſpecies

ſpecies of neceſſary knowledge. But what moſt of all proves their attachment to this ſcience, as well as their exalted opinion concerning it, is, that, in their myſterious and hieroglyphic theology, they were accuſtomed to apply the figures and characters uſed in it to illuſtrate their ideas of the ſanctity and perfection of the Deity. They transferred their geometrical ſpeculations from body to ſpirit; and, from meaſuring terreſtrial objects, they attempted to define ſubjects immeaſurable, infinite, eternal. They compared the Deity to a CIRCLE, that moſt perfect and comprehenſive of all mathematical figures, whoſe centre is every where but whoſe circumference is no where to be found; and in alluſion to the ancient doctrine of a certain *plurality*, which it has been demonſtrated in preceding pages they believed to exiſt in the divine nature, they deſignated it by the expreſſive ſymbol of an equilateral TRIANGLE. Hence the winged globes that decorate the front of all the Egyptian temples, and the triangular columns in memorial of their ſacred triad, at the entrance of moſt of the Indian pagodas.

MEDI-

## MEDICINE.

To a minute inveſtigation of the peculiar virtues and qualities contained in certain plants and herbs the old Indians were naturally incited by the vaſt variety and beauty of thoſe innumerable vegetable productions that cover the face of that fertile region.[¶] Theſe in many places grow up ſpontaneouſly; many, applied to ſacred uſes, the miniſters of religion reverently cheriſhed; and many the hand of traffic diligently cultivated for exportation. Her rich ſpices and aromatics of every kind, her coſtly gums, and fragrant nards, of ſovereign efficacy in the healing art, exceed all calculation in number and value.

Their beauty, number, and variety, indeed, could not fail of being moſt attentively marked by a race, who lived almoſt wholly in the open air; who ranged through vaſt foreſts, barefoot, in penances and in diſtant pilgrimages; or reſided in delicious groves; and, if the ſcenes of the Sacontala repreſent them juſtly, who cultivated in delicious gardens the ſacred

plants

plants of *cuſa*, *bilva*, the *lotos*, the *ſandal*, and other trees, for the ſervice of the temples.

The Brahmins in thoſe ages excluſively profeſſed the medical ſcience; and it was abſolutely neceſſary for thoſe who ſubſiſted on the vegetable productions of the earth to be well informed of the ſalutary or noxious quality of the roots on which they fed. Their advance in this ſcience, conſequently, muſt have been very gradual: it depended upon long and intenſe obſervation of the effect on the human conſtitution, produced by the different ſpecies of herbs and plants cultivated in the garden or growing wild in the field; and wiſdom, in many inſtances, could only have been obtained by fatal experience. They alſo ſedulouſly obſerved the effect of different plants upon animals; and as Melampus, a Greek, devoted to the concerns of paſtoral life, from obſerving that goats were purged after eating the bitter root hellebore, adminiſtered it afterwards with ſimilar effect to man, and was therefore conſidered as the inventor of that branch of the ſcience; ſo, doubtleſs, the Brahmins, in the boundleſs foreſts of India, were guided to the uſe or rejection

jection in phyſic of the various vegetables that ſpring up ſpontaneouſly in that more exuberant ſoil.* The venomous tribes of reptiles, beautiful

* I beg permiſſion to inſert in this place a note, fraught with information highly illuſtrative of the ſubject under conſideration, from the elaborate Hiſtory of the Origin of Medicine, publiſhed ſome years ago by my learned friend Dr. Lettſom.

"The ancients inform us, that the vulnerary virtues of dittany were firſt learned from the ſtag; Plin. l. xxv. c. 53. Theophraſt. l. ix. c. 16. — That the ſame animal purges itſelf by means of ſeſeli; Aelian, l. xiii. c. 50. — That men learned that the ligneous part of caſſia was laxative from the ape; Fallop. Purg. Simplic. 35. — That the mungouſe, a ſpecies of ferret, eats a certain root, after which he attacks the ſerpent with impunity; Kæmpfer. Exot. Faſc. iii. c. 10. Auct. Herb. Amb. c. 37, 53. G. ab Orta, l. i. c. 44. et Loch. in Diſſ. On which account it is uſed in malignant diſeaſes. — That the deer wounds its eyes when they are inflamed with the point of a ruſh, and the goat with the bramble; Geopon. l. xviii. c. 18. Plin. l. viii. c. 50. Aelian. l. vii. c. 14. — That the tortoiſe defends itſelf againſt the bite of a ſerpent by origanum; Aelian. Anim. l. vi. c. 11. — That the bear, by means of the arum, opens its inteſtines, almoſt collapſed during winter; idem, l. vi. c. 3. — That the ſame animal licks up ants as an antidote, when poiſoned by eating the mandrake; Plin. l. viii. c. 27. — That jays, partridges, and blackbirds, purge themſelves with the leaves of laurel during their moulting; idem. — That pigeons, cocks, and doves, uſe pellitory, and ducks and geeſe ſtone-crop, for the ſame purpoſe; idem. — That hawks cure their eyes by the juice of the hawk-weed; Aelian. Anim. l. ii. c. 43. — That the ſerpent caſts the ſkin off its eyes by the application of fennel; idem, l. ix. c. 16. — That partridges, ſtorks, and wood-pigeons, heal their wounds by origanum; idem, l. v. c. 46. — That, from dogs eating certain herbs, in order to purge themſelves, the Egyptians

beautiful but baneful, that lurk amid the luxuriant vegetation of India, by their attacks upon man, added a ſtimulus to their reſearches in this walk of ſcience. The bite of ſome of the Indian ſerpents is ſo immediately deſtructive, that if the herb, benevolently ordained by an all-wiſe Providence to be its antidote, be not inſtantly applied, inevitable death is the reſult. In conſequence, vigilance was redoubled and experiments multiplied; the plants, injurious or ſanative, were claſſed in a kind of rude order; medical receipts were treaſured up in families *memoriter*, and handed traditionally down with ſcrupulous fidelity from father to ſon through ſucceſſive generations.

It is preſumed, that the books of medicine, at this day in uſe among the Indians, contain numerous collections of ſimilar recipes; the greater part of which conſiſt of antidotes

tians learned the art of purging; idem. — That from dogs, alſo, the virtue of pellitory in diſſolving calculi was diſcovered; Boccone. — That Melampus diſcovered the purgative quality of hellebore, by obſerving its effects upon goats. That deer, when injured by a ſpecies of venomous ſpider, eat crabs to obviate its effects; Plin. l. viii. c. 10. Aelian. Var. Lect. l. xiii. c. 50. Confer. Haller. Biblioth. l. i. p. 3." —— *Hiſtory of the Origin of Medicine*, p. 88.

againſt

againſt poiſon, in the deadly qualities of which the old Indians are recorded to have been deeply verſed, and to have often adminiſtered it, though at the ſame time they well knew how to repel the violence of the moſt fatal of that claſs of drugs. The feigned tale of the propenſity of the Hindoo women to get rid of their huſbands by this infamous method, and conſequently of their being compelled from that cauſe to burn themſelves on the ſame funeral pile that conſumed *their* remains, was probably founded on the general perſuaſion of the ancients in this reſpect.

The conceptions of the ancients, however, in regard to the cauſe of this ſingular ceremony, were undoubtedly ill-founded; for, women devote themſelves, in India, to the conſuming flame in conſequence of the ſublime promiſes holden out to them for this fidelity, even in death, to their huſbands, in the ſacred Vedas.* The real origin of the Hindoo law, that permitted the living to burn themſelves, and enjoined the burning of the deceaſed, ſeems to have been derived, the

* Halhed's Gentoo Code, preface, p. 4.

former

former from mythology, on the ſuppoſition that the tranſmigrating ſoul was purified in its paſſage through the elemental flame; the latter, that it prevented the air from becoming, as might be conjectured, tainted in that burning clime by putrefaction. The Indians had ſufficient ſtore of common as well as fragrant woods to perform this ceremony. The Egyptians, on the contrary, whoſe country afforded but ſlender ſupplies of wood, endeavoured, by embalming the dead, to avoid that dreaded evil. This want of timber for building elegant and airy ſtructures was alſo probably the occaſion of giving to their architecture, and, among other buildings, to their ſepulchres, that maſſy and indeſtructible form, which for ſo many centuries has reſiſted, and for as many more perhaps may reſiſt, the united violence of the ſun and weather.

As the nation at large was deeply intereſted in this kind of medicinal reſearch, after the invention of alphabetical writing, it became equally the law of Hindoſtan as of Greece, that remarkable diſorders, and their mode of treatment and cure, ſhould be recorded on tablets conſpicuouſly ſuſpended on the pillars

lars of the temple; which, in conſequence, every body was able to conſult, and regulate, by the rules there laid down, the treatment of the malady with which either himſelf or his family were inflicted. The catalogue, increaſing with every age, ſoon became enormouſly great. The books, which the Hindoos at this day, and the Egyptians anciently, pretended to have in medical ſcience, were probably nothing more than obſervations and recipes of this kind carefully collected and zealouſly preſerved.

In all operations where inciſion was abſolutely unavoidable, the ancient Indians, doubtleſs, uſed for a time, like other nations, inſtruments made of ſiliceous ſubſtances, to which the ancients had found out a method of giving an edge as ſharp as the keeneſt ſteel; for, both Herodotus and Diodorus inform us, that it was with an Ethiopic ſtone the Egyptian phyſicians opened the dead bodies, and cut out the entrails of thoſe that were to be embalmed; and with ſharpened flints, alſo, they performed the ceremony of circumciſion.*

* Herodotus, lib. ii. — Diod. Sic. lib. i. p. 101.

A conſiderable portion of the precepts in the code of Indian laws has either an immediate or remote alluſion to the health of the four great tribes. Hence their innumerable ablutions, their temperate diet, their various faſts, ſo proper in a country where perſpiration is abundant, where an ardent ſun urges and inflames the juices of the blood, and an univerſal diſpoſition to libidinous pleaſure prevails. The prieſts of Egypt, induced by ſimilar motives, equally forbade indulgence in animal food and wine; the frequently preſcribed uſe of caſſia, ſenna, and other laxative drugs, which are indigenous in that country, checked at once the ſpreading of the elephantiaſis and the fervour of paſſion exalted by the beams of a tropical ſun. Thus the flames that formerly aſcended in the Egyptian temples at once purified the air and ſoothed the deity adored. From the vaſt lakes and other ſtagnant waters of the Delta aſcended noxious vapours, which the ſacred graſs, called κυφος, by Plutarch, profuſely burnt three times, was intended to diſperſe. The graſs κυφος, of the Egyptians, was poſſibly the CUSA of the Indians, which was ever of the firſt note in their herbal ſacrifices.

Herodotus, who is very ample on this ſubject, informs us, that the Egyptians purged themſelves every month, three days ſucceſſively, by vomits and clyſters, to preſerve uninterrupted health.* Their averſion to the rich and rancid fleſh of ſwine, a ſpecies of food alſo ſtrictly prohibited by the Levitical law, and inviolably avoided both by ancient and modern Jews, as well as the entire abſtinence of the ſacerdotal order from fiſh, and animals accuſtomed to feed on fiſh, is doubtleſs to be imputed to the ſame judicious precaution.

I have frequently obſerved that milk, GHEE, or clarified butter, and rice, dreſſed and rendered palatable, a variety of ways, by the rich ſpiceries of the country, formed the principal food of the Brahmins and indeed of the Hindoo tribes in general. No banquet is eſteemed more coſtly and luxuriant by thoſe prieſts. than a full bowl of freſh cream, whoſe richneſs they moderate with the diluting juice of the cooling and high-flavoured fruits of that garden of Aſia. Hence the veneration of the Indians for the bovine

* Herodotus, lib. ii. p. 82.

ſpecies,

ſpecies, which ſeems to have originated as well from their gratitude to that uſeful animal for the nutriment it produced them as from the anxious wiſh of their great legiſlator to preſerve a race ſo abſolutely neceſſary to the concerns of agriculture, which was to be the conſtant employ of the fourth part of the nation; and here we diſcover at leaſt *one* probable ſource of the prevailing doctrine of the Metempſychoſis. This rooted veneration both of the Indians and Egyptians for the ſame deified animal was the occaſion of the former giving to the rock, through which the Ganges ruſhes into Hindoſtan, the imagined form of a cow, whence its geographical name of GANGOTRI, *the Cow's Mouth*; and cauſed the ſpot where the Nile ſeparates, at the point of the Delta, to be denominated BATN-EL-BAKARI, *the Cow's Belly*; a very remarkable fact, and ſcarcely poſſible to be accounted for on the ſcore of mere accident.

With all this ſtudious care of the legiſlator to prevent diſeaſes, ſince they are the lot of ſuffering humanity, diſeaſes would at times afflict the Hindoos with as much inevitable certainty, though, probably, from

their temperate habits, with far leſs violence, than their Aſiatic neighbours.

It cannot be ſuppoſed, indeed, that, in a climate where rice and vegetables compoſe the uniform diet of the people, many *acute* diſeaſes could have occurred in the practice of the phyſician; and thoſe that did occur were probably cured by dietetic medicine, beyond which the knowledge of mankind, in the very early ages to which I allude, cannot be preſumed to have greatly advanced. The whole extent of the ſcience, at that time known, ſeems to have been confined to the uſe of medicines that were either of an emetic, purgative, or diuretic, nature. Thus, among thoſe of a purgative ſort, are reckoned the *Mirabolans*, which are preſcribed very generally and abundantly in caſes that require it. As a ſovereign ſtomachic they give the infuſion of a reed, on the Malabar coaſt, called *Cræatt*, a plant reſembling the Centaurus Major: it has an extremely bitter taſte, and is conſidered as a great promoter of digeſtion. In this light they alſo eſteem the nut of the Areca, mixed with chunam, a kind of lime burnt and made of the fineſt ſhells, of which they univerſally take very large

large quantities. But what ſhall we think of a race who inſiſt on the cooling virtues of pepper, and give large doſes of it in a burning fever? Among provocatives, they have always ſet a very high value on the invigorating root of ginſeng, and others of ſimilar quality, and have been but too happy in finding out a great variety which need not be here enumerated. For fluxes of blood, which are not uncommon in this climate, eſpecially in the autumnal ſeaſon, the Brahmins have diſcovered a very ſimple, but, as they affirm, a very efficacious, remedy; it conſiſts in a regimen limited to rice alone, ſtewed dry, to which they aſcribe a quality highly abſorbent of the acrimony which occaſions the diſorder: by way of drink, they allow only water, corrected by a very moderate quantity of cinnamon or caſſia lignum.

If we may judge from certain cuſtoms now prevalent in India, and recorded by modern travellers, *fire* was alſo not unfrequently applied in caſes where the aid of the phyſician was neceſſary; for, at this day, in violent ſickneſs, purging, and contortion of the inteſtines, they apply to the feet plates of burn-

ing iron, which are ſaid rarely to fail of the intended effect.

The expreſſed juice of particular roots and vegetables, known by experience to poſſeſs either of the qualities above-mentioned, emetic, purgative, or diuretic, was freely adminiſtered to the patient who required it. With reſpect to *acute* internal diſeaſes, when they did happen, their ſlender experience in the deeper branches of the healing art, added to their general, I do not ſay *total*, ignorance of anatomy, rendering them utterly inadequate to the management of them, they reſigned the patients afflicted with them to the care of the gods, by whoſe immediate reſentment againſt their crimes, it was firmly believed, they were incurred. In diſeaſes of this deſperate claſs recourſe was had to earneſt ſupplication and oblations, often of the moſt coſtly kind, in hopes, by them, to appeaſe the wrath of the offended deity. The Brahmins, who, on theſe occaſions, found it neceſſary to ſubſtitute juggling for ſcience, reſorted to the moſt powerful charms to evoke the evil dæmon, and incantations the moſt awful were the immediate prelude either to a ſpeedy recovery or a rapid exit. In conſidering this early ſtage of the ſcience,

ſcience, it ſhould not be forgotten that odours, ſtrongly aromatic or offenſively fetid, had their ſhare in the practice of the Hindoo phyſician; and certain precious ſtones, of the more coſtly kind, worn as amulets, were not ſuppoſed to be without a ſovereign virtue in the cure of diſeaſes.

WAR, to which the Rajah or military tribe had a natural and authorized propenſity, and regulations for the conduct of which, in all the numerous branches of that ſcience, which conſequently prove their early acquaintance with it, engage a large part of the Hindoo code, could not have been carried on, eſpecially with ſuch inſtruments as the battle-axe, and others then made uſe of, without dreadful laceration of the human frame; and it would be too cruel a reflection on any race of men, however abhorrent at the ſight of blood, to ſuppoſe the unhappy victims would be left to periſh without an effort to ſtaunch the ſtreaming wound whence life was iſſuing. In theſe caſes, the application of bandages, with the addition of certain leaves or roots bruiſed or ſteeped in balſamic oils, or unguents formed of the vulnerary herbs, were all that could be em-

ployed by a race of men, who, from ſuperſtitious principles, are ſaid in general to have avoided, as much as poſſible, the uſe of the lancet, and even to this day to continue entirely ignorant of *anatomical diſſections*.

However inferior the knowledge of the Hindoos in the practice of the more intricate branches of medicine, their early reſpect for the profeſſion is evident, by their making a phyſician, by name Danwantara, one of the fourteen *retnas*, or precious things recovered from the ocean after the deluge; and from their moſt ancient medical book, entitled Chereca, being believed by them to be the work of SEEVA. That deficiency of knowledge, however, is by no means an aſcertained fact, but rather the contrary; for, Sir William Jones declares that he had himſelf ſeen Indian preſcriptions taken from their ancient medical treatiſes, one conſiſting of *fifty-four*, and another of *ſixty-ſix*, ingredients; but ſuch compoſitions, he adds, are always to be ſuſpected, ſince the effect of one ingredient may deſtroy that of another; and it were better to find certain accounts of a ſingle leaf or berry, than to be acquainted with

with the moſt elaborate compounds, unleſs they too have been proved by a multitude of ſucceſsful experiments. " The noble deobſtruent oil extracted from the Eranda-nut, the whole family of Balſams, the incomparable ſtomachic root from Columbo, the fine aſtringent ridiculouſly called Japan earth, but in truth produced by the decoction of an Indian plant, have long been uſed in Aſia; and who can foretel what glorious diſcoveries of other oils, roots, and ſalutary juices, may yet be made?"*

In another place he acquaints us that infinite advantage may be derived by Europeans from the various medical books in Sanſcreet, which contain the names and deſcriptions of Indian plants and minerals, with their uſes, diſcovered by experience, in curing diſorders; and there is a vaſt collection of them from the Cheraca, above-mentioned as the work of SEEVA, down to the Roganirupana and the Nidana, which are comparatively modern. Of medicine, however, ſyſtematically formed into a ſcience, he forbids us, after all, to expect finding any ancient treatiſe whatever,

* Aſiatic Reſearches, vol. i. p. 409, London, quarto edit.

perhaps,

perhaps, in all the Oriental world; what in time may be diſcovered will be a mere empirical hiſtory of diſeaſes and remedies as now practiſed in India and the greateſt part of Aſia by Brahmins and Mahomedans.*

In many of the medical purſuits of the Indians, a certain degree of chemical knowledge was eſſentially neceſſary, and the ſame ſcientific ſkill by which they were enabled to extract the colour from indigo, ſandal, and other vegetable productions, to give the vivid dyes to their manufactured cottons, would doubtleſs direct their efforts in extracting the virtues of thoſe rich botanical and mineral treaſures which their country in ſuch abundance produced for the more important purpoſes of health. Their chemiſtry, however, opens an immenſe field for diſcuſſion; and, on that account, I forbear going at any length into the ſubject, till it comes regularly before us in this review of Indian literature. What I ſhall have to obſerve upon it will merely concern the ſcience under conſideration, and as it is connected with a ſubject extremely intereſting, but very much

* Aſiatic Reſearches, vol. iv. p. 350.

miſconceived;

miſconceived; I mean, whether in reality *anatomical diſſections* have always been looked upon with that horror with which they are now regarded in India.

I ſhall commence the conciſe ſtrictures, which I have at preſent to offer on the ſubject, with obſerving, that, though from the general ſlow advance of mankind in intellectual improvement, we ought to be extremely cautious of conceding too much even to Indian ingenuity; yet it cannot be denied, that, the mine of knowledge once ſprung, that curious and docile race ardently and vigorouſly purſued their inveſtigations, and penetrated that mine to the profoundeſt depth their limited means of reſearch would allow of. Hence, probably, a very few ages elapſed before the combination of a thouſand incidental circumſtances led them to become gradually acquainted with the two grand pillars of all genuine medicine, — anatomy and chemiſtry. The offering up of human victims to Cali, the fable goddeſs of India, and their blood in conſequence profuſely ſhed by the ancient Indians in the Naramedha ſacrifice, a practice forbidden the modern Brahmins, though ſometimes practiſed, even

at

at the preſent day, by the military tribes, more familiar to ſanguinary inſtitutions; that dreadful rite, I ſay, could not fail of making them ſpeedily acquainted with the anatomy of the human body. Their having been anciently accuſtomed to theſe oblations, from their preſent horror of human and beſtial ſlaughter, which commenced with the avatar of Buddha, who forbade them under the ſevereſt penalties, was once ſtrenuouſly denied; but more familiar acquaintance with the Sanſcreet language, and their original inſtitutions, obtained at Benares itſelf by learned Orientaliſts of our own nation, have placed the matter beyond all doubt; and the ſubject has been already amply canvaſſed in preceding volumes. It was on this account that I heſitated in ſpeaking deciſively when diſcourſing concerning their advance in anatomical ſcience. But, if doubt ſhould ſtill remain, let him that heſitates attend to the RUDHIRADHYAYA, or *ſanguinary chapter*, in the fifth volume of Aſiatic Reſearches, tranſlated *verbatim* by Mr. Blaquiere from the Calica Purana, and he will not fail of being convinced of the addiction to this nefarious crime of the ancient, whatever may be the placid character of

of the modern, Indian. No precepts can be conceived more expreſs, nor indeed more horrible, than thoſe which the text of this tremendous chapter enjoins.

" By a human ſacrifice, attended with the forms here laid down, DEVI, the goddeſs Cali, is pleaſed one thouſand years, and, by a ſacrifice of three men, one hundred thouſand years. By human fleſh, Camachya, Chandica, and Bhairava, who aſſume my ſhape, are pleaſed one thouſand years. An oblation of blood, which has been rendered pure by holy texts, is equal to ambroſia; the head and fleſh alſo afford much delight to the goddeſs Chandica. Let, therefore, the learned, when paying adoration to the goddeſs, offer blood and the head; and, when performing the ſacrifice to fire, make oblations of fleſh.

" Let the performer of the ſacrifice be cautious never to offer bad fleſh, as the head and blood are looked upon by themſelves equal to ambroſia.

" The performance of the ſacrifice with a Chandrahaſa, or Catri, (two weapons of the axe-kind,) is reckoned the beſt mode; and with a hatchet, or knife, or ſaw, or a ſangcul, the ſecond beſt; and the beheading with a hoe,

hoe, or Bhallac, (an inſtrument of the ſpade-kind,) the inferior mode.

" Let not the learned uſe the axe before they have invoked it by holy texts, which have been mentioned heretofore, and framed by the learned.

" Let the ſacrificer ſay, Hrang Hring. Cali, Cali, O horrid-toothed goddeſs! eat, cut, deſtroy all the malignant, cut with the axe; bind, bind; ſeize, ſeize; drink blood; ſpheng, ſpheng; ſecure, ſecure. Salutations to Cali.

" Let the face of the victim be turned towards the north, or elſe let the ſacrificer turn his own face to the north, and the victim's to the eaſt. Having immolated the victim, let him without fail mix ſalt, &c. as before-mentioned, with the blood.

" The veſſel in which the blood is to be preſented is to be according to the circumſtances of the offerer of gold, ſilver, copper, braſs, or leaves ſewed together, or of earth, or of *tutenague*, or of any of the ſpecies of wood uſed in ſacrifices. Human blood muſt always be preſented in a metallic or earthern veſſel; and never, on any account, in a veſſel made of leaves or ſimilar ſubſtance."

Again,

Again, it is ſaid, " Let a human victim be ſacrificed at a place of holy worſhip, or at a cemetery where dead bodies are buried. Let the oblation be performed in the part of the cemetery called Heruca, which has been already deſcribed, or at a temple of Camachya, or on a mountain. Now attend to the mode.

" The cemetery repreſents me, and is called Bhairava; it has alſo a part called Tantranga: the cemetery muſt be divided into theſe two diviſions, and a third called Heruca.

" The human victim is to be immolated in the eaſt diviſion, which is ſacred to Bhairava; the head is to be preſented in the ſouth diviſion, which is looked upon as the place of ſculls ſacred to Bhairavi; and the blood is to be preſented in the weſt diviſion, which is denominated Heruca.

" Having immolated a human victim, with all the requiſite ceremonies at a cemetery or holy place, let the ſacrificer be cautious not to caſt eyes upon the victim.

" On other occaſions, alſo, let not the ſacrificer caſt eyes upon the victim immolated, but preſent the head with eyes averted.

" The

" The victim muſt be a perſon of good appearance, and be prepared by ablutions and requiſite ceremonies, ſuch as eating conſecrated food the day before, and by abſtinence from fleſh and venery, and muſt be adorned with chaplets of flowers and beſmeared with ſandal-wood."*

The early addiction of the Indians to theſe ſanguinary rites, theſe minute injunctions as to the mode of ſacrificing the human victims, and the auguries deduced from them, being thus fully demonſtrated to have taken place from the Puranas, the books holden moſt ſacred among them next to the Vedas, — to ſay nothing of what they muſt infallibly have learned from the ſame conduct in regard to beſtial ſacrifices; for the regulation of which, very minute and circumſtantial precepts are given in the ſame chapter; — after theſe authentic ſtatements, I ſay, it is impoſſible to give credit to thoſe who affirm that their anceſtors were totally ignorant of the internal ſtructure of the human body, and that a race, ſo curious in their reſearches into natural hiſtory, were

* Aſiatic Reſearches, vol. v. p. 378.

unacquainted

unacquainted with thoſe anatomical diſſections which are ſo indiſpenſably neceſſary in the judicious adminiſtration of internal medicine. The flint-ſtones, before-mentioned, with their extremely keen edges, might, in the infancy of anatomical ſcience, be ſufficient for every purpoſe of this kind; but under the next head it will be ſhewn that metallurgic operations, alſo, were in ſuch early periods practiſed among them, that there was no neceſſity for their continuing to make uſe of thoſe rude inſtruments in ſurgery beyond the firſt or ſecond century after the deluge. In the preceding quotation, ſacrificing-inſtruments of the *axe*-kind, the *hatchet*, the *ſaw*, and the *ſpade*, are repeatedly mentioned. Theſe could not have been fabricated without the exertion of chemical ſcience by the proceſs of fire, and hence it is at leaſt demonſtrated that they muſt have been accuſtomed, at the early period when the Puranas were compoſed, to the method of fluxing *metallic*, as well as of compounding *herbaceous*, ſubſtances.

To place the ſubject in debate beyond the poſſibility of future diſpute, I ſhall ſelect a paſſage from the Eſſay on the Philoſophy of

the Indians, the laſt publicly delivered by the only perſon who has ever read, in the original, the ſublime Vedas of India, the diſtant date of whoſe promulgation has already been aſcertained. " In the Veda itſelf," ſays Sir William Jones, " I found, *with aſtoniſhment*, an entire *Upaniſhad* on the internal parts of the human body; with an enumeration of nerves, veins, and arteries; a deſcription of the heart, ſpleen, and liver; and various diſquiſitions on the formation and growth of the fœtus."* This muſt be conſidered as abſolutely deciſive of the queſtion; and all that is left us is extreme aſtoniſhment, with the preſident, at the great and total change that has taken place in the manners and ſentiments of a race, which, in all other reſpects, are as immutable as the laws of the Perſians, their anceſtors.

But though from the early uſe, among the Indians, of weapons fabricated of *braſs* and *iron*, as recorded both by ſacred and profane writers, and from the equally undoubted uſe of metallic inſtruments in ſurgery, it is indubitable, that, in the moſt

* Aſiatic Reſearches, vol. iv. p. 167.

ancient

ancient periods, that branch of chemical ſcience was known to them which has relation to the fuſion and compounding of metals, I think it ſcarcely credible that, in the early times to which I allude, they had advanced ſo far in that ſcience, as to apply preparations of the various metals to medicinal purpoſes. No proofs, at leaſt, of any ſuch fact, have as yet been exhibited, and the queſtion, therefore, with reſpect to India at leaſt, muſt remain undecided till the Brahmin books on the ſubject have been more deeply inveſtigated. On the other hand, we are unable to reconcile to reaſon or tradition the judgement pronounced by Le Clerc, and the authorities cited by that learned hiſtorian of this ſcience, that nothing of this kind was known till ſo late a period as the age of Paracelſus. The contrary is evident from an infinite variety of paſſages ſcattered up and down in the medical works of the ancient Greek writers, which the learned Mr. Dutens has collected together under the head of Medical Chemiſtry, and to which I beg to refer the inquiſitive reader.*

* Inquiry into the Learning of the Ancients, p. 243.

There remained enough, otherwiſe, to be done by the Oriental ſtudent; for, nature, as before obſerved, has ſtored India and its neighbouring territory with an infinite variety of the nobleſt natural productions that enrich the Materia Medica; and, for the diſcovery and trial of their virtues, as well as the extraction of their balſamic oils and eſſences, we are primarily indebted to the laborious inveſtigation and patient toil of the ancient Brahmins. A ſummary view of a *portion* only of her treaſures of this kind will convince the reader of the truth of this remark. Her foreſts and gardens produce us, in high perfection, caſſia, aloes, opium, rhubarb, the white and red ſaunders, ſaffron, turmeric, anacardium, the amomum, ſeſamum, aſſafœtida, benzoin, and camphor. The gums lac, benjamin, gamboge, myrrh, olibanum, ſanguis draconis, bdellium, ſtorax, and innumerable other reſins, are alſo her tribute to the weſtern world. Her mineral beds are fraught with the moſt precious ores and gems; her extenſive ſhores abound with the richeſt pearls and are covered with the fineſt ambergris; her very animals yield us muſk, civet, and the bezoars; her aromas and ſpices of every kind ſurpaſs enumeration;

meration; the pepper, the ginger, the nutmegs, the cloves, the cardamoms, the cinnamon, the nardus Indicus, and other fragrant nards, which ſhe matures in her boſom, and ſends annually to Europe, to conquer, by effeminacy and luxury, the nations who have ſubdued her ingenious progeny by ruder weapons.

In what manner and to what particular caſes the old Indian phyſicians applied all this immenſe treaſure of medicinal roots and drugs we ſhall never fully know, till their ancient treatiſes on the ſubject ſhall have been effectually explored. But, as it is neceſſary to bring this prolonged diſcourſe on medicine to an end, we ſhall conclude with taking a ſummary view, from authentic ſources of information, of the principal diſeaſes with which the Indians are afflicted, and their uſual methods of cure as in practice at the preſent day, but moſt probably derived from very ancient ſources of inſtruction.

On this ſubject it muſt be confeſſed, that, however exalted might have been the knowledge of the ancient Indians, they have bequeathed a very ſlender portion of it to their deſcendants, who ſeem to practiſe phyſic, as

they do aſtronomy, by a routine of which they do not underſtand the principles. It is this ignorance as to the theory, and groſs abſurdity as to the practice, of medicine, in the preſent race of Brahmins, indeed of all the Oriental nations, that has rendered European phyſicians ſo much in requeſt at the court of the Indian and Mahomedan princes; that detained Gemelli ſo long at the court of Jehan Ghir; and gave an opportunity to Bernier to write his intereſting account of the life and actions of Aurungzeb, and the voluptuous retreat of the Indian emperors at Caſhmere. This latter traveller, with Thevenot, Fryer, and Sonnerat, two of them phyſicians, and conſequently able judges of the ſubject, will be my faithful guides in the courſe of that ſurvey.

The account of Bernier, however, though a phyſician, is, I am ſorry to add, very ſuperficial and unſatisfactory; it conſiſts in the enumeration of a few ſhort aphoriſms, ſimple, indeed, and rational enough, but certainly not very profound or ſcientific. Thus, in a general way, he acquaints us, their books inculcate, "that one who is ſick of a fever ſtands in no great need of nouriſhment; and that

that the main remedy of all ſickneſs is abſtinence; that nothing is worſe for a diſeaſed perſon than fleſh broths, nor does any thing corrupt ſooner in the ſtomach of a feveriſh patient; and that no blood is to be taken away" (which flatly contradicts the aſſertion of their *never* uſing phlebotomy) "but in caſes of great and urgent neceſſity, as in phrenitis, or inflammation of the cheſt, liver, and kidneys."*

Thevenot mentions two methods in general uſe among the Indians of curing the bite of venomous reptiles of a very extraordinary nature; the firſt is, holding a burning coal, as long and as cloſe as poſſible, to the wound; which draws out the venom by degrees, and, what is very ſingular, the patient does not feel any great inconvenience from the heat during the time of the operation. The other remedy conſiſts in the application of the *Cobra*, or ſnake, ſtone. Of this celebrated ſpecific, the beſt are made in the city of Diu, and are compoſed of the roots of certain plants burnt to aſhes, which aſhes are mixed with a particular kind of earth, and then

* Bernier's Voyages to India, vol. iii. p. 165, London edition, 1672.

burnt a ſecond time. Of this compoſition, reduced into a paſte, they form the Cobra-ſtone of the ſize of a pigeon's egg. It is applied in caſe a perſon be bit by any kind of ſerpent or viper, or wounded by a poiſoned arrow, in the following manner: — they firſt prick the wound with a needle till the blood flows, and then fix the ſtone to it, which ſticks faſt, and remains there till it falls off of itſelf. It is afterwards put into woman's, or, if that cannot be had, into cow's, milk, where it purges itſelf of the poiſon; and if this be not done immediately the ſtone burſts.*

Dr. Fryer, who was ten years in India, and who, as a phyſician, was certainly a proper judge of ſuch matters, ſpeaks alſo of theſe ſnake-ſtones. He ſays, they are made by the Brahmins, and that they are a ſure counter-poiſon to all deadly bites. If the ſtone adheres, it attracts the poiſon, and, put into milk, it recovers itſelf, leaving its virulency therein, which is diſcovered by its greenneſs.†

* Voyage aux Indes Orient. vol. v. p. 318.

† Fryer's Travels, p. 33.

This

This author imputes to the viciſſitudes of the climate all the variety of diſeaſes ſuffered by the Indians. During the ſteady northern monſoon, their fibres are hardened againſt the uſual diſeaſes of the country. In the variable months, catarrh, glandular ſwellings of the throat, rheumatiſms, and intermitting fevers, are common among them. In the extreme heats they are afflicted with cholera morbus and violent inflammations of the eyes. In the rains, with dreadful fluxes, and diſorders of the brain and the ſtomach: for the latter they eat HING, a ſort of liquid aſſa-fœtida, which occaſions them to emit a diſguſting odour.

In agues, he ſays, they uſe a powder compoſed of a preparation of native cinnabar, which is reckoned as infallible as the Peruvian bark among us.*

In lethargies they adminiſter garlic and ginger in a menſtruum of oil or butter. At preſent they uſe not the knife in ſcarification, but the rind of a certain cauſtic nut that burns the ſkin. The actual cautery is applied in vomiting, with looſeneſs, and alſo in

* Fryer's Travels, p. 115.

calentures.

calentures. They abhor phlebotomy; but, when abſolutely neceſſary, they make uſe of leeches, uſing them immoderately, and often putting on a hundred at once, which they have not ſkill to remove, and they adhere therefore till they are ſatiated, and then fall off of themſelves, by which means the life of the exhauſted patient is often expoſed to the moſt imminent danger.* Their practice in fevers is not leſs pernicious; for, according to Dr. Fryer, they adminiſter coolers till, with the flame of the diſeaſe, the vital heat is alſo nearly extinguiſhed; obſtinate chronical diſeaſes are the fatal conſequence. Dropſy, jaundice, and cachexies of every deſcription, attack the patient and make the remainder of his life miſerable. In fevers leſs violent they content themſelves with adminiſtering, in abundance, the cooling fruits of the country. Thus the fruit of the Anana, or Indian pine-apple, on account of its peculiar yet pleaſing acidity, mingled with a delicious flavour, is valued as a noble febrifuge. The refrigerating juice of the water-melon, the delicious mango, and the fruit of the ſtately

* Fryer's Travels, p. 115.

tamarind-

tamarind-tree, are all highly eſteemed for the ſame excellent quality.*

For that moſt dreadful of diſeaſes, but ſo common in Eaſtern countries, the elephantiaſis, the ancient Indians found out a ſovereign cure in adminiſtering arſenic in conſiderable quantities. The genuine preſcription is, happily for the curioſity of poſterity, preſerved in the Aſiatic Reſearches, and is ſaid to have been an old ſecret of the Hindoo phyſicians, who applied it alſo to the cure of cold and moiſt diſtempers, as the palſy, diſtortions of the face, relaxation of the nerves, and ſimilar diſeaſes: its efficacy too has been proved by long experience; and this is the method of preparing it:

"Take of white arſenic, fine and freſh, one tola; of picked black pepper ſix times as much; let both be well beaten at intervals, for four days ſucceſſively, in an iron mortar, and then reduced to an impalpable powder in one of ſtone, with a ſtone peſtle, and, thus completely levigated, a little water being mixed with them, make pills of them as large as tares or ſmall pulſe, and keep them dry in a ſhady place.

* Fryer's Travels, p. 118.

"One

" One of thoſe pills muſt be ſwallowed morning and evening with ſome betel-leaf, or, in countries where betel is not at hand, with cold water. If the body be cleanſed from foulneſs and obſtructions by gentle cathartics and *bleeding* before the medicine is adminiſtered, the remedy will be the ſpeedier."*

The next article in the ſame volume ought not to be omitted in this account of Indian medicine; it has relation to the bite of ſerpents, particularly that moſt fatal one of the *Cobra de Capello*, and the demonſtrated cure is from forty to ſixty drops of *volatile cauſtic alkali ſpirit* diluted with water, or, if that be not at hand, a rather larger portion of eau de luce, which is to be had every where. The inventor of this valuable medicine is Mr. Williams, a Bengal practitioner. The caſes fell under his perſonal obſervation; and, for his public communication of it, that gentleman deſerves the thanks of every perſon, native and foreign, in the whole extent of India.

* Aſiatic Reſearches, vol. ii. p. 149.

The arſenic pills above-mentioned are alſo ſaid, I preſume from the proximity of that mineral to mercury, to be a ſovereign cure for the *Perſian fire*, as they there call the *lues venerea:* and here I find it neceſſary to remark, that, upon whatever treatiſe, concerning the diſeaſes of India, we caſt our eyes, we are certain to read of the ravages of this fatal diſorder, which ſeems to have reigned for *immemorial ages* in that country; and, owing to the unhappy rejection of European aid by the inhabitants, from ſuperſtitious motives, and a rooted prejudice in favour of their own abſurd method of treatment, to have taken wide and deep root in it, and to have cut them off annually by thouſands.

In proof of theſe rooted ſuperſtitions and obſtinate prejudices of the Hindoos, juſt mentioned as the indubitable cauſe of ſuch dreadful calamities to them, may be adduced the following inſtance inſerted in the Sketches of Mr. Crauford, who writes from perſonal knowledge.

" One of the natives, who was employed in an eminent poſt at an Engliſh ſettlement, being prevailed on in a dangerous illneſs to receive a viſit from an European doctor, it

was

was found that, by long abſtinence, which in ſickneſs the Hindoos often carry to exceſs, the ſtomach would no longer retain any thing. The diſorder being of a putrid kind, the doctor wiſhed to give the bark in ſtrong wine; but the Hindoo poſitively refuſed to take it, notwithſtanding many arguments that were uſed both by the doctor and the governor who accompanied him, and who had a conſiderable degree of influence over the Hindoo. They promiſed that it ſhould remain an inviolable ſecret; but he replied with great calmneſs, that he could not conceal it from himſelf, and a few days afterwards fell a victim to his perſeverance."*

Moſt of the children of the inferior caſts are ſaid to come into the world with the virus of this dreadful malady latent in their blood, and the moſt terrible evils reſult from it in future life. Medicines that can only palliate the ſymptoms, but have not efficacy to exterminate the ſeeds of it, are made uſe of, and the tortured patient lingers through a miſerable life, and dies at laſt of the elephantiaſis.† The public inſtitution of

* Sketches of the Hindoos, p. 306.

† Sonnerat, vol. ii. p. 146.

Dancing

Dancing Girls, an authorized ſyſtem of proſtitution that reflects eternal diſhonour on the policy of the country, has probably been the baneful ſource of this national calamity.

From the ſame fatal cauſes, ignorance and ſuperſtition, added to a burning climate, the ſmall-pox, when it appears, is ſaid to ſpread terrible devaſtation through their great towns and villages. The principles of their religion forbid the uſe of inoculation; they make no diſtinction in their treatment between the confluent and the refluent kind. Every thing is left to diet drinks and ſuperſtitious antidotes; the patient is ſprinkled with the aſhes of cow-dung; anointed with cocoa-nut oil; and finally bathed in cold water, which generally terminates his exiſtence.*

Sonnerat records a ſingular cure among them for the epilepſy, which is eating of rooks. In cutaneous diſorders, which are ſuppoſed to proceed from worms, unguents and cataplaſms are ſeldom applied, the omnipotent cauſtic removes at once the ſkin and the worm that corrodes it. For diſorders produced by cold, the hotteſt in-

* Sonnerat, vol. ii. p. 146.

ternal

ternal medicines are uſed; inflammation, convulſiόns, and death, enſue; and the evil dæmon is execrated for the ſins of the unſkilful phyſician. The poverty of their diet, eſpecially of the inferior claſſes, while it preſerves them from inflammatory diſeaſes, induces thoſe of a very different kind. The violent purgatives to which they conſtantly reſort in all illneſs, from ſuppoſed obſtructions, increaſe the malady, and the carcaſe of the putrid patient ejects worms upwards and downwards; his ſkin burns; his eyes are ſparkling and humid; his tongue is torrid and often ſplit; he grows delirious, and dies.

All the ſpecies of fluxes before deſcribed, with their concomitant ſymptoms, are enumerated by this author, with the addition of one of a ſort more than uſually fatal, which happened while he was in India, and carried off above ſixty thouſand people in Pondicherry and its neighbourhood.* He imputes it to perſpiration ſuddenly obſtructed by one or other of the thouſand cauſes that ſo frequently produce it in India, by habits of reli-

* Sonnerat, vol. ii p. 142.

gion,

gion, ſleeping in the open air, meagre nutriment, ablution in cold water after eating or exerciſe, &c. &c.

The quantity of butter eaten with his rice, by the abſtemious Brahmin, not unfrequently brings on indigeſtions which terminate in ſudden death; on the other hand, thoſe caſts which regale on meat, a nouriſhment too heavy for ſo hot a climate, are often the victims of indigeſtion, called in India *mort de chien.*

Some inflammatory fevers they have which are cured by diet-drinks made of the pounded root of the margoſier, ſomething ſimilar to our bark, and preferred by them to that imported by us. The gout cannot be ſuppoſed common among them; but, when it attacks them, it is cured by the uſe of a powder in which brimſtone is the principal ingredient. In the part of India, where our author reſided, they cure the bite of the Cobra by an application known to Europeans by the name of Ointment of Madura, and likely enough to have been one of their oldeſt ſpecifics againſt its poiſon. It is a mixture of different herbs and roots containing a great quantity of volatile alkali; and the principal ingre-

dient in it is the kernel of the pine-apple tree. It is a violent purgative, and emits a fœtid odour like human excrement. They rub a portion into the wound, and make the patient ſwallow another portion. If early applied, it generally proves efficacious.*

Such is the extraordinary, but authentic, portrait of the medical practice of the Brahmins. I have entered as extenſively into the ſubject as poſſible, becauſe it is a very intereſting one to European practitioners. We ſhall now attend to their CHEMISTRY, which will lead us a few ſteps farther in the inquiry; though to what extent they applied the preparations of the ſeveral metals to medicinal purpoſes can never be known, till their oldeſt Sanſcreet treatiſes ſhall have been tranſlated.

## CHEMISTRY.

Thoſe who, from the earlieſt periods, have been devoted to a ſuperſtitious veneration of the element of FIRE, thoſe who gave to their

* Sonnerat, vol. ii. p. 153.

pagodas

pagodas the form of pyramids and cones, to imitate the ſolar beam, and on whoſe altars a ſacred flame for ever blazed, could ſcarcely fail of being intimately acquainted with its wonderful properties, which in fact were the ſource of that admiration and reverence. It was their acquaintance with its active pervading principle and energy which induced them to idolize FIRE as the ſoul of the material world; its hallowed beam, their phyſical theology taught them, emaning from the ſolar orb, firſt gave animation and motion to univerſal nature; and, from ſome mutilated tradition of a better theology, they regarded fire as the great CHEMIST that was finally to diſſolve the univerſe and reduce it to aſhes. In fact, they conceived the orbs of heaven to be formed of a kind of ætherial fire, and that they floated in a circumambient luminous fluid, which they conſidered as a fifth element, and denominated the AKASS. I have had frequent occaſion to obſerve that their ſuperſtitious veneration for this element probably commenced, during their reſidence in Chaldæa, with the firſt corruption of the pure patriarchal theology; and, according to the

Indian hiſtory,* devout pilgrims, as well in memorial of their origin as of this their primæval devotion, ſtill reſort to Hierapolis in Syria, and pay their devotions at the two JWALA-MÛCHIS, or *ſprings of Naptha*, the one not far from the banks of the Tigris, the other on the flaming plain of Baku, on the borders of the diſtant Caſpian Sea, where the prieſts of the ſun watched night and day the never-dying flame, ſuppoſed to have been kindled by his own ray.

Of the powerful agency of FIRE, the Aſiatics could ſcarcely avoid entertaining the moſt awful conceptions, ſince its tremendous effects were often too diſtinctly viſible in that torrid climate, where the broad flaſhes of the tropical lightning fired their loftieſt foreſts, and the globe of electric flame levelled their proudeſt temples with the duſt. They alſo ſaw it in the burſting volcano that ſhook to the centre their mountains of broadeſt baſe, and filled whole provinces with deſolation and diſmay.

Obſerving with anxious and fearful attention the wonderful operations of nature by

* Mr. Wilford on Egypt and the Nile, in Aſiatic Reſearches, vol. iii. p. 297.

the

the proceſs of fire, in the melted minerals that rolled in torrents down the ſides of the flaming mountain, in their reſiſtleſs courſe ſweeping away every intervening object, or aſſimilating it with its own ſubſtance, the ancient inhabitants of Aſia endeavoured to imitate her ſupreme analyzing power, and very early commenced the practice of chemiſtry. To what extent, indeed, that primitive race knew the art of decompounding and combining bodies by means of fire, it is impoſſible to aſcertain; but, without being conſiderable adepts in this ſcience, neither could Tubal Cain, — that Tubal Cain, whoſe high antiquity and whoſe reſembling name plainly mark him for the Vulcan of Pagan mythology; for, they thought, and one might almoſt think with them, that the inventor of the ſcience of chemiſtry could ſcarcely be leſs than a god, — have been the inſtructor of avery artificer in braſs or iron; nor the Indian Viſvacarma, the active ſubſtitute of Agni, the Hindoo god of fire, have forged the arms of the Devatas, thoſe miſſile weapons of fire in the Puranas denominated AGNEE-ASTRA, and made uſe of in the Satya, or firſt age of the world. The uſe of fire-

arms, in the earlieſt periods, opens a wide field for reflection, in many reſpects, ſince it proves that the Indians knew how to apply the ſalt-petre and ſulphur vivum, with which their plains abound, to the purpoſes of war, and formed out of them a compoſition which, if not actual gunpowder, was of ſuch a nature as gave to bodies a projectile motion. Mr. Halhed expreſſly denominates it *gunpowder*, and gives the following account of the invention in his preface to the Gentoo Code.

" It will, no doubt, ſtrike the reader with wonder, to find a prohibition of fire-arms in records of ſuch unfathomable antiquity; and he will probably hence renew the ſuſpicion which has long been deemed abſurd, that Alexander the Great did abſolutely meet with ſome weapons of that kind in India, as a paſſage in Quintus Curtius ſeems to aſcertain. Gunpowder has been known in China, as well as in Hindoſtan, far beyond all periods of inveſtigation. The word fire-arms is literally, in Sanſcreet, Agnee-aſter, *a weapon of fire.* They deſcribe the firſt ſpecies of it to have been a kind of dart or arrow tipped with fire, and diſcharged upon the enemy from

from a bamboo. Among ſeveral extraordinary properties of this weapon, one was, that, after it had taken its flight, it divided into ſeveral ſeparate darts or ſtreams of flame, each of which took effect, and which, when once kindled, could not be extinguiſhed; but this kind of Agnee-aſter is now loſt. Cannon, in the Sanſcreet idiom, is called Shet-Agnee, or *the weapon that kills a hundred men at once*; and the Puranas or hiſtories aſcribe the invention of theſe deſtructive engines to Viſva-carma, their Vulcan, who is related to have forged all the weapons for the war which was maintained in the Satya Yug, between the Devatas and Aſſoors, (or the good and bad ſpirits,) for the ſpace of one hundred years."*

This quotation ſeems to prove that the natives of this country had both actually and immemorially the uſe of gunpowder, and the metallic inſtruments of death, braſs, perhaps, or copper, employed in the offenſive uſe of that deſtructive article: but, if the Agnee-aſter of ancient times bear any reſemblance to the *fire-rocket* uſed in the modern wars of

* Halhed's Gentoo Code, Preface, p. 52.

India, it proves that the Indians had, in thoſe early periods, the uſe of iron alſo, the extraction and fuſion of which ore, and the preparation of it for uſe, are among the moſt complex and elaborate operations of chemiſtry. The *fire-rocket* is deſcribed, by a gentleman who perſonally examined them in India, "to conſiſt of a tube of iron about eight inches long, and an inch and a half in diameter, cloſed at one end. It is filled in the ſame manner as an ordinary ſky-rocket, and faſtened towards the end of a piece of bamboo, ſcarcely as thick as a walking-cane, and about four feet long, which is pointed with iron: at the oppoſite end of the tube from the iron point, or that toward the head of the ſhaft, is the match. The man who uſes it points the head of the ſhaft, that is ſhod with iron, at the object to which he means to direct it, and, ſetting fire to the match, it goes off with great velocity. By the irregularity of its motion, it is difficult to be avoided; and ſometimes acts with conſiderable effect, eſpecially among cavalry."*

* Sketches of the Hindoos, p. 295.

A modern author of much celebrity has very ingeniouſly attempted to prove that the ancients were actually acquainted, in very early periods, with the chemical proceſs of making *gunpowder*, and inſtances the invention of Salmoneus, with which he is ſaid to have imitated the thunder and lightning of Jupiter, in proof of his aſſertion. What is, however, much more to our preſent purpoſe, he cites Themiſtius to prove that the Indian Brahmins encountered one another *with thunder and lightning* launched from an eminence;* and Philoſtratus in evidence, that, when attacked by their enemies, they did not leave their walls to fight them, but darted upon them miſſile weapons, in noiſe and effect reſembling πρηστῆρας και βροντας,† *lightning and thunder*. By theſe weapons were evidently meant the fire-ſhaft, or rocket, deſcribed above; and to theſe we may add the artificial thunder and lightning uſed in their cavern-initiations.

No higher proof in time need, indeed, be adduced of the intimate acquaintance of the Indians with the penetrating and deſtructive

* Themiſtius, Oratio 27, p. 337.

† Philoſtrat. Vita Apollonii, lib. ii. cap 33.

nature

nature of fire than that exhibited in the *chacra*, with which they have armed their god Veeſhnu, and with which he deſtroys the malignant Aſſoors. It is a circular maſs of fire, which, inſtinct with life, like the thunderbolt of the Grecian Jove, when hurled from the hand of that deity, traverſes the illimitable void, and exterminates his enemies whereſoever concealed.*

The ancient myſteries generally abounded with alluſions to ſubjects of a phyſical kind. The operations of nature in her moſt hidden receſſes, particularly in forming ores, and the precious gems that lie hidden in the boſom of the earth, and in the maturing of which they thought the ſun had a conſiderable influence, were among the favourite ſubjects of their philoſophical inveſtigations. The Perſians, in particular, who were THE ANCESTORS of the Indians, muſt have been well acquainted with metals; for, it is a circumſtance not a little curious, and very much in favour of the hypotheſis that aſſigns to Oriental chemiſtry a very high antiquity, that thoſe learned Aſiatics, in their myſterious rites, allotted

* Geeta, p. 150.

to

to the *ſeven terreſtrial metals* the very ſame names by which they denominated the *ſeven planets*, and the ſame hieroglyphic characters at this day equally diſtinguiſh both.

It has been obſerved in a former volume of this work, that, by the ſubterraneous *cave of Mithra*, they meant to repreſent the mundane ſyſtem; and that, in purſuance of this idea, they erected in that cave a high ladder, on the aſcent of which were ſeven different gates, according with the number of the planets. The firſt gate was of *lead*, which was intended to mark the ſlow motion of the planet SATURN; the ſecond gate was compoſed of *tin*, by which they ſhadowed out the brilliancy and ſoftneſs of VENUS; the third gate was of *braſs*, which they imagined a juſt emblem of the ſolidity and durability of JUPITER; the fourth gate was of *iron*, by which MERCURY was typified, becauſe he is ſuited, like iron, to all ſorts of labours; the fifth gate conſiſted of a *mixed maſs*, of which the heterogeneous compoſition, variableneſs, and irregularity, rendered it the fit emblem of MARS; the ſixth gate was of *ſilver*, exhibiting an apt ſimilitude of the mild radiance of the SILVER EMPRESS OF THE NIGHT; and the

ſeventh

ſeventh was of *gold*, a proper emblem of the SUN, the one being the king of metals, and the other being the ſovereign of the ſky.* We have alſo obſerved, that, on the lofty concave dome of this ſplendid cave, the zodiacal aſteriſms were deſignated; and round their walls many aſtronomical and geometrical ſymbols were arranged in the moſt perfect ſymmetry, and placed at certain diſtances, which ſhadowed out the *elements* and *climates* of the world.†

The progreſſive advances of the candidate for initiation through the dreary and winding receſſes of this ſubterraneous temple, *immani magnitudine*, had all a phyſical reference blended with myſtic alluſions to that theology, which was almoſt entirely founded on phyſics. The whole was a ſublime allegory; a ſpiritual ſort of *chemiſtry*. The paſſage of the body through the reſpective mundane elements was only typical of the ſoul's progreſs through various ſtages of purification, as gold is tried in the *furnace* of the *refiner*. The utmoſt exertion of chemical ſcience,

* Celſus apud Origen contra Celſum, lib. iv.

† Porphyry de Antro Nympharum, p. 256, edit. 1655.

known

known to them, muſt have been employed alternately to terrify and tranſport the bewildered aſpirant. For want of better, I adopt the ſame, words which I uſed before, when deſcribing theſe myſteries.

After having proceeded for ſome time through theſe gloomy adyta, the ground ſuddenly began to rock beneath his feet; the whole temple trembled; and ſtrange and dreadful voices were heard through the midnight ſilence. To theſe ſucceeded other louder and more terrific noiſes reſembling *thunder*; while quick and vivid flaſhes of *lightning* darted through the cavern, diſplaying to his view many ghaſtly ſights and hideous ſpectres.* At length, the profounder myſteries commenced; and now, arrived on the verge of *death* and *initiation*, every thing wears a dreadful aſpect; it is all horror, trembling, and aſtoniſhment. An icy chilline's ſeizes his limbs; a copious dew, like the damp of real death, bathes his temples; he ſtaggers, and his faculties begin to fail; when the ſcene is of a ſudden changed, and

* Hence it would appear, they well knew the doctrine of Newton, that "*ſulphureous ſteams*, abounding in the bowels of the earth, ferment with *minerals*, and ſometimes take fire with ſudden *corruſcation* and dreadful *exploſion*." — Newton's Optics.

the

the doors of the interior and ſplendidly illumined temple are thrown wide open. A miraculous and divine light diſcloſes itſelf; and ſhining plains and flowery meadows open on all hands before him. *Acceſſi confinium mortis*, ſays Apuleius, *et calcato Proſerpinæ limine, per omnia vectus* ELEMENTA *remeavi; nocte medio vidi* SOLEM *candido* CORUSCANTEM *lumine:* — Arrived at the bourn of mortality, after having trod the gloomy threſhold of Proſerpine, I paſſed rapidly through all the ſurrounding elements; and ſaw the SUN at midnight ſhining with MERIDIAN SPLENDOR.* Theſe ſucceſſive thunders and coruſcations; this blaze of glory, ſcarcely tolerable by the viſual organ; gay ſmiling plains, and flowery meadows, arrayed in all the vivid colouring of nature; were the effect of the operations of chemiſtry in the moſt refined branches of the ſcience, labouring to impreſs, with alternate effect, on the mind of the enthuſiaſtic devotee, the gloomy ſuperſtitious horrors, and ſplendid celeſtial viſions, ſo well calculated to keep alive the ardour of the Sabian devotion.

* Apuleii Metamorphoſis, lib. ii. v. 1. p. 273; and Indian Antiquities, vol. ii. p. 326.

The

The reader may poſſibly object to this ſtatement, that it rather concerns the Perſian and Chaldæan ſyſtem of ſuperſtition than the Indian; but, as I have throughout theſe volumes contended for the identity of the theological and philoſophical doctrines of thoſe three ancient nations, and particularly as the recorded deſcent of the Indians from the old Perſians is ſo well authenticated in the Aſiatic Reſearches, I might on that ground ſuffer the argument for that identity to reſt; but there is a moſt curious, and, to my purpoſe, moſt important, paſſage in the Life of Apollonius by Philoſtratus, which will decidedly prove the congenial nature of their ideas on this ſubject, and I ſhall inſert it without a comment: "*Apollonius cum Jarcha Brachmane ſecreto philoſophatus, muneris loco ab eo tulit annulos ſeptem,* TOTIDEM PLANETARUM DICTOS NOMINIBUS, *quos ſingulos geſtaret per ſubjectos planetis dies; ſc. ut annulum* AUREUM *geſtaret die ſolis,* ARGENTEUM *die lunæ,* FERREUM *die Martis,* HYDRARGYRINUM *die Mercurii, die Jovis* STANNEUM, ÆNEUM *die Veneris, et* PLUMBEUM *die Saturni, quod ſingulis planetis ſingula reſpondeant* METALLA."

Leaving

Leaving for the preſent theſe more diſtant ſpeculations, let us attend to the gradual progreſs in metallurgic ſcience of this fire-adoring nation. Properly to cultivate the earth, and cauſe it to produce in adequate abundance the various kinds of grain, which formed the temperate banquet of the Indian, more durable and penetrating implements than the firſt ſimple ones of wood would ſoon be found neceſſary; and, to defend the property which induſtrious individuals might poſſeſs, againſt the aſſaults of men leſs honeſt and induſtrious, arms would be wanted. Both agricultural and warlike implements were, probably, during thoſe primitive ages, fabricated of braſs or copper. To reap the ripened grain, at leaſt, a ſickle of metal was required; and cymbals of *braſs* and *brazen* ſiſtra are expreſſly ſaid, by Lucian, to have been employed in the myſterious rites of the Dea Syria, the prototype of the Ceres of Greece, in alluſion to the claſhing of the *brazen* implements uſed in huſbandry, before mankind had become acquainted with the more difficult proceſs of forging iron. Indeed braſs could ſcarcely fail of anciently being in very common uſe in India, ſince the *lapis calamina-*

*ris*,

*ris*, from the fuſion of which with copper that factitious metal is formed, is neither more nor leſs than the ore of INDIAN ZINC, of which the beautiful compoſition, called TUTENAGUE, next to ſilver in ſtrength and beauty, has been immemorially formed into the moſt elegant vaſes and other domeſtic ornaments by the Oriental manufacturer. The heroes of Homer ſtalk in arms of burniſhed braſs; the ſhield, the helmet, the cuiraſs, the greaves, were braſs; and Herodotus informs us, that a nation very near to India, if they were not in reality Indians, the Maſſagetæ, had their axes, hatchets, ſpears, and even their horſe-accoutrements, of the ſame metal.* Braſs, too, was principally uſed in the mechanical operations of the more ancient Indians; and from them, or at leaſt from the Eaſt, where mines were firſt explored and wrought, inſtruments of this metal were ſcattered over the weſtern world. They are ſometimes, at this day, found amidſt the rubbiſh of old mines; and even thoſe of Cornwall, when firſt re-opened after a lapſe of many ages, exhibited to the aſtoniſhed explorers the hammers, axes,

* Herodotus, lib. i. p. 215.

chiſſels, and other copper and braſs tools of the ancient Phœnician miners. In fact, the ſuperior ductility and malleability of copper would naturally induce a race, ignorant of the deeper arcana of chemical ſcience, to prefer it, even when iron was at length diſcovered, to that leſs yielding metal, the ſmelting and refining of which was attended with ſuch infinitely greater labour. Modern experiments upon ſome remnants of antiquity of this kind have demonſtrated that they poſſeſſed the knowledge of hardening copper, either by mixing alloy with it, or by ſome other means, ſo as to give it a firmneſs and ſolidity nearly approaching to iron.

In the old Indian ſculptures and pictures, the Avatars, Creeſhna and Ram, are generally portrayed, in combat with their gigantic enemies, armed with the battle-axe, or the bow and arrow; whence it may fairly be concluded that theſe were the moſt ancient kinds of armour uſed in Indian warfare. Carticeya, however, the Indian god of war, and the gigantic Ravan, are in the ſame pictures repreſented as bearing in their hundred arms, the expreſſive emblem of enormous ſtrength, a dreadful diſplay of every ſpecies of military

weapon

weapon of offence, as ſwords, ſpears, javelins, &c.* which proves that they alſo were in very early uſe among the military tribe, and were probably fabricated of iron; which is repeatedly mentioned as an article of great conſumption and traffic in the Inſtitutes of Menu. Without this metal, indeed, and that in its moſt improved ſtate, when refined to STEEL, many of the Indian artiſts and manufacturers at that early period, and by that code conſidered as *already arranged in diſtinct caſts*,—I mean in particular the tribes of goldſmiths, jewellers, and engravers,—could not poſſibly have carried on their reſpective occupations, nor have cut in gems and metals thoſe Sanſcreet characters, which, engraved on the imperial ſignets of Aſia, we have been informed above, by Mr. Halhed, were ſo anciently and generally diffuſed from the Indus to the Sea of China. For this, they muſt have had inſtruments of the nature of the *drill*, the *graver*, and the *trepan*, which, being neceſſarily formed of the pureſt and higheſt tempered ſteel, implies in the Indians a

* See the plate of the ſixth Avatar in the Indian Hiſtory, vol. ii. part 1.

previous knowledge and practical experience of the moſt arduous operations of metallurgic ſcience.

In reſpect to that ſpecies of chemiſtry which has relation to the proceſs of hardening argillaceous and other earths by fire, we cannot doubt but that it was fully known to a race famous in antiquity for the many elegant kinds of pottery and porcelain common among them, both for domeſtic ornament and uſe. From tradition, hiſtory, and the commercial annals of mankind, for nearly thirty centuries, we alſo know that they were able to extract, by infuſion and other means, from earths, roots, and minerals, that variety of lovely and brilliant dyes, for which they have been immemorially celebrated; and, by diſtillation and fermentation, all thoſe rich oils and fragrant balſams which the vegetable kingdom ſo abundantly produces in that luxurious garden of the Greater Aſia.

"From the inſatiable deſire of riches," ſays an old Sanſcreet author, cited in Mr. Halhed's Preface, "I have digged beneath the earth; I have ſought *by fire to tranſmute the metals of the mountains.*"*

* Halhed's Gentoo Code, Preface, p. 29.

Theſe

Theſe are eſſential branches of chemical ſcience; and, that they actually exiſted at this early period in Hindoſtan, every body will be convinced who attentively turns over the pages of Menu's Inſtitutes in the chapters that have reference to their mechanical arts and yet unrivalled manufactures. In thoſe pages we find them, as I have truly ſtated in my Diſſertation on the Commerce of this ancient people,* engraving on the hardeſt ſtones, and working in the moſt difficult metals; giving the moſt beautiful poliſh to the diamond, an art ſuppoſed not to be known till the 15th century; enchaſing in gold, and working in ivory and ebony, with inimitable elegance. In weaving, ſpinning, and dying; in all the more ingenious devices appertaining to the reſpective occupations of the joiner, the cutler, the maſon, the potter, and the japanner; in executing the moſt curious cabinet and filligree work in gold; in drawing birds, flowers, and fruits, from the book of nature with exquiſite preciſion; in painting thoſe beautiful chintzes annually brought into Europe, that glow with ſuch a rich variety of

* Vol. vi. p. 363.

colours, as brilliant as they are laſting; in the fabrication of thoſe ornamental vaſes of agate and chryſtal, inlaid with the richeſt gems, that conſtitute ſo large a portion of the ſplendid merchandize of India with the neighbouring empires of Aſia; in ſhort, in whatever requires an ingenious head or a ductile hand, what people on earth, in thoſe remote or in theſe modern times, has ever vied with the Indians?

The ſelection of a very few paſſages from thoſe celebrated Inſtitutes, ſince the *Vedas* are not yet acceſſible, will be ſufficient to prove the truth of the preceding ſtatement. With reſpect to their ſkill in exploring *mines* and fabricating *metals*, in *enchaſing* in gold, in working in *ivory*, in *piercing gems*, and in *dying*, we read;

"Day by day muſt the king, though engaged in forenſic buſineſs, conſider the great object of public meaſures, and inquire into the ſtate of his carriages, elephants, horſes, and cars, his conſtant revenues and neceſſary expenſes, *his mines of precious metals, or gems*, and his treaſury." Inſtitutes, p. 243.

"Of brilliant *metals*, of *gems*, and of every thing made with ſtone, (as *pots* or *vaſes*,) the purification

purification ordained by the wife is with aſhes, water, and earth." P. 137.

" A *golden* veſſel, not ſmeared, is cleanſed with water only; and every thing produced in water, as coral-ſhells or pearls, and every ſtony ſubſtance, and a *ſilver* veſſel, not *enchaſed*." Ibid.

" Veſſels of *copper*, *iron*, *braſs*, *pewter*, *tin*, and *lead*, may be fitly cleanſed with aſhes, with acids, or with water." Ibid.

" Utenſils made of *ſhells* or of *horn*, of *bones* or of *ivory*, muſt be cleanſed by him who knows the law, as mantles of *cſhuma* are purified." Ibid.

In page 261, we find puniſhments ordained " for mixing impure with pure commodities, for *piercing* fine gems, as diamonds or rubies, and for *boring pearls* or inferior gems improperly."

" All woven cloth, *dyed red*, cloth made of Sana, of cſhuma bark, and of wool, *even though not dyed red*, are prohibited the mercantile Brahmin." Ibid.

That the ancient Indians alſo knew how, by fermentation, to obtain ardent ſpirits is evident from the frequent prohibition of in-

toxicating liquors enjoined on the Brahmin tribe.

" *Inebriating liquor* may be conſidered as of three principal ſorts; that extracted from dregs of ſugar, that extracted from bruiſed rice, and that extracted from the flowers of the Madhuca: as one, ſo are all; they ſhall not be taſted by the chief of the twice-born." P. 320.

There are ſcarcely any of the mechanical branches of trade, eſpecially thoſe of a more coſtly kind, in which a knowledge of chemiſtry is not more or leſs neceſſary; and theſe have ever flouriſhed throughout India in earlier times and in a higher degree of perfection than in any other country of Aſia. In ſhort, the philoſopher wanted chemiſtry for experiment; the artiſt for practice, in a thouſand different ways. It opened the path of the former into the inmoſt receſſes of nature, and taught him to imitate her various and wonderful power of reſolving, ſeparating, combining, and tranſmuting, the elementary particles of matter that compoſe the vaſt globe which we inhabit. It enabled him to account for phænomena otherwiſe utterly inexplicable; he no longer beheld with ſuperſtitious

ſtitious horror the burſting volcano, the *aurora borealis*, and other terrific meteors; he ſoon learned himſelf to roll the thunder and launch the lightning of Jove; he ſtole fire from heaven, and lighted up, in the laboratory, a creation of his own. The latter matured the projects and realized the hopes of the philoſopher. By practical chemiſtry he extended the bounds of mechanic ſcience, he widened the field of commerce, and ſtrengthened the bands of ſocial intercourſe.

A variety of proofs of this kind have been already adduced. A few more, and a general ſummary of what has been obſerved on this head, ſhall now be added, and conclude this article.

Like the Phœnicians, their rivals in whatever concerned trade and the arts, the Indians had arrived at conſiderable excellence in making glaſs, *vaſa murrina*, or *murrhins*, a ſpecies of elegant porcelain, much in requeſt among the higher order of Romans, and artificial gems of various colours, which were often fraudulently impoſed on ſtrangers for genuine ones. They were alſo celebrated for their curious work in horn and ivory, and their being able to ſoften down thoſe hard

ſubſtances

ſubſtances to receive impreſſions of Avatars and other figures, their inlaying them with different precious ſtones, and ſtaining them with the moſt beautiful colours, are all proceſſes intimately connected with this ſcience. Various kinds of dyed leather are repeatedly mentioned in the Inſtitutes, and therefore they muſt alſo have known the method of tanning and colouring that commodity; and we have already mentioned the vivid and durable colours, particularly the *red* and the *blue*, for which their cottons and ſilks have been ſo famous in all ages; but theſe colours could not have been obtained, or ſo indelibly fixed, without a very high advance in chemiſtry. Their ability to obtain *arrack* and other intoxicating liquors by fermentation; their method of extracting ſugar, by coction, from the cane; of oils, unguents, and eſſences, by diſtillation; of aſſaying and refining metals; of enamelling; of lacquering; of gilding; of varniſhing; of japanning; of making the fineſt porcelain; of fabricating artificial fire-works and gunpowder; are all ſo many direct proofs of what is here contended for. In ſhort, trade, like agriculture, is indebted to chemiſtry for nearly all the various tools and utenſils uſed

in

in its innumerable branches; and, without it, the painter, the potter, the ſculptor, the carver, and gilder, all the claſſes of working ſmiths, whether in gold, ſilver, copper, or iron, the tin-man, the pewterer, the plumber, the glazier, the diſtiller, (and all theſe trades are occaſionally alluded to in the Inſtitutes,) could not have purſued their reſpective occupations; thoſe occupations, let it be ſtill remembered, in which they were unchangeably fixed by the Indian legiſlator twelve or fourteen hundred years before Chriſt, when in moſt other countries CHEMISTRY was in a ſtate of comparative infancy.

## CHAPTER II.

HYDRAULICS.—*The great Veneration paid by the Indians to the aquatic Element, in great Part the Reſult of their phyſical Inveſtigations into its Properties and Qualities.—The Obligation they were under of forming vaſt Reſervoirs, in various Regions of Hindoſtan, remote from the great Rivers, and of raiſing by* PUMPS *and conveying by* CANALS *the Waters to their Rice-Grounds, neceſſarily rendered them acquainted with the Principles of this Science.—Their Manufactures, alſo, eſpecially their chemical Proceſſes in Medicine, Diſtilling, and Dying, required* SIPHONS *and other hydraulic Machines.——* PNEUMATICS. *—This Science intimately connected with their mythological Superſtition.—*INDRA, VAYOO, *and their ſtormy Attendants, only the* ATMOSPHERIC PHÆNOMENA *perſonified.—The great Viciſſitudes of Weather that take Place during the different Seaſons in ſo vaſt an Empire and ſo varied a Climate; one Region chilled with the Snows of Caucaſus, and the other*

*other parched with equatorial Fervors: The tremendous Tornado and the peſtilential Blaſt rendered the ancient Indians too well acquainted with thoſe Phænomena.—Their metallurgic Operations required the Aid of vaſt* BELLOWS *for their Furnaces.—Their Mines could not have been explored and wrought without* AIR-SHAFTS *and other pneumatic Machines, nor without greatly enlarging their Knowledge in this Branch of Science, which they made uſeful in the Myſteries practiſed in their ſubterraneous Caverns.—Probably not unacquainted with* ELECTRICITY *and* MAGNETIC ATTRACTION.——PAINTING.—*The exquiſite Beauty of the Flowers and the brilliant Plumage of the Birds of Hindoſtan had the Effect to make the Indians* PAINTERS *in very early Periods, as well as to give them a decided Superiority over all the ancient World in the vivid Luſtre of their* DYES.—*Their peculiar Method of* PAINTING *on* COTTON *deſcribed from Pliny and modern Authors.—A ſhort Hiſtory of their* SILK *and* COTTON *Works.—Their ancient Manufactures of* PORCELAIN *and* COLOURED GLASS.—*Additional Obſervations on their* SCULPTURE *and* ARCHITECTURE.

CHITECTURE. —— ENGRAVING ON GEMS. —— *The high Antiquity of this Art in India.* —— *The Kind of precious Stones principally ſelected for this Purpoſe, and the Devices engraved on them.* —— *The infinite Variety and Neatneſs of their* JEWELLERY *and* GOLD WORK.

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## HYDRAULICS.

THE lotos, ſuſpended aloft in a thouſand temples of India and Egypt as the picturesque ſymbol of that humid principle, which the emanation of the eternal beam, piercing the darkeſt receſſes of the chaotic waters, animated and rendered prolific, demonſtrates the ſtrong traditional veneration for the aquatic element, which deſcended down to the generations of Aſia from the firſt ſpeculative race of human philoſophers. Their conceptions concerning the union of theſe two grand principles, and the conſequent generation of all things, were ſometimes expreſſed by flames iſſuing from the calix of the lotos, ſculptured in form of a vaſe,

vaſe, which indeed its natural ſhape greatly reſembles; and, at others, that calix is encircled with a radiated crown of flames, juſt mounting above the burniſhed edge, to mark the ſuperior energy of fire over water. This is the invariable meaning of the ancients, when either Brahma, Seeva, Oſiris, or Horus, are portrayed ſitting upon that ſacred plant: they are only emblems of the ſolar fire warming and invigorating the chaotic waters. This their conſtant and immemorial deification of the element of water, and their profound admiration of the aſtoniſhing qualities poſſeſſed by it of pervading, cheriſhing, and diſſolving all things, the effect of philoſophical inveſtigation, muſt neceſſarily and naturally have induced an acquaintance with many branches of Hydraulic ſcience.

Indeed the doctrine of Thales, that is, of the Ionian ſchool, *aquam eſſe initium rerum*, may be fairly ſaid to have flouriſhed in its vigour in the earlieſt poſt-diluvian ſages. From the ſame traditional fountains, whence they obtained their information, Moſes alſo acquired his knowledge in regard to this wonderful element; and from the Moſaic and Egyptian ſchool it was diffuſed among the philoſophers

philoſophers of Greece. From the extravagant honours which they paid to it, the firſt race of Indians ſeem to have conſidered water as the univerſal ſtamen, or grand elementary matter, out of which, by the aid of the *igneous* principle, all things proceeded, and into which their phyſical reſearches ſhewed them they would all by putrefaction be again reſolved. As it ſeemed to poſſeſs all the energetic properties of deity, they therefore exalted it to the rank of a divinity, and made it the object of their adorations. Now it can ſcarcely be credited, that thoſe whoſe conſtant practice it was, (at leaſt if we may form a judgement of their conduct by that of their preſent progeny in blood and religion,) with holy enthuſiaſm, to explore ſprings and conſecrated rivers, and whom neceſſity compelled to form vaſt tanks, for the purpoſes of agriculture, in the ſcorched regions of India; that thoſe who were accuſtomed to hew out magnificent baths for ſuperſtitious ablutions; and who, though perhaps ignorant of the cauſe, witneſſed the alternate ſwell and depreſſion of the waters of the ocean, attracted by that moon whoſe reſplendent orb they adored with ſcarcely leſs fervour than her radiant para-

mour, eſpecially thoſe of her philoſophic race, who were ſituated nearer the tropical regions, where the tides riſe with an awful elevation, or on the gulphs of the Ganges and Indus, the *bore* (as it is called) of which latter river riſes often to the prodigious height of between twenty and thirty feet; and who had likewiſe ſurveyed and conſidered the ſtupendous column of ſuſpended water in the phænomenon of the *typhon*, or water-ſpout, ſo common in equatorial climates; could be entirely ignorant of the properties and laws of FLUIDS. It is ſcarcely poſſible that thoſe, who could wield with eaſe and ſkill the ponderous inſtruments of the forge, wanted either wiſdom or vigour to fabricate many of the implements uſed in this branch of ſcience, although they might not poſſeſs the more powerful, ſtupendous, and complicated, engines of modern times.

If what has been ſaid above, relative to the knowledge of the Indians on this ſubject, ſhould appear extravagant, I may ſafely ſhelter myſelf from cenſure under the opinion of many learned men among the moderns, who, from what the fathers of human ſcience have delivered down to poſterity concerning the chaotic

chaotic ſtate of things, and the univerſal fluid in which the earthy particles were ſuſpended, have urged the high probability of the Newtonian doctrines, reſpecting gravity, fluidity, and centrifugal force, having been known in remoteſt antiquity, though afterwards, in the wreck of ſcience and the revolution of empires, totally forgotten and loſt, till revived again by that immortal philoſopher. Indeed, we have ſeen this fact expreſſly aſſerted by Sir William Jones, in reſpect to the Indians, under the head of Aſtronomy.

The great diſtance of time, and the numerous revolutions that have befallen the Indian empire, added to the preſent deplorable ignorance of the Brahmins, leave us in doubt to what point in practice they carried their extended ſpeculations in this branch of ſcience; but that they were not merely *theoretically* acquainted with it muſt be evident from one or two obſervations with which I ſhall conclude this head of inquiry.

The great variety of artificial FOUNTAINS, ſome of vaſt magnitude, which the ancient ſovereigns and great rajahs of India were accuſtomed to have in thoſe extenſive gardens

in which they took ſuch high delight, and the refreſhing coolneſs of which was neceſſary to mitigate the heat of that burning climate, affords very evident proof that they were well acquainted with this ſcience. They had obſerved that clouds, breaking on the ſummits of mountains, diſcharged upon them their watery treaſures, which, ſinking into the chinks and pores of the earth in thoſe elevated regions, ruſhed forth with violence from their ſides or at their baſe in the form of ſprings and fountains. The imitative genius of the Indian marked her plaſtic power, enlarged the ſphere of ſpeculation, and filled with fountains and *jets d'eau* the delicious gardens of Delhi and Agra.

But, independently of theſe their accurate obſervations of nature and her operations, they could ſcarcely fail of learning the great principles of hydraulic ſcience, before the Indian empire was formed, from their Aſſyrian anceſtors; from that Bali, or Belus, who ſtands nearly at the head of their great ſolar dynaſty of ſovereigns, when they formed a part of the vaſt Iranian empire, which comprehended nearly a third of all Aſia. In Aſſyria they could not fail of being well known,

known, as every body muſt be convinced who has read the account given by Diodorus* of the hanging gardens of Babylon, with their lofty terraces extending gradually up to the ſummit of the walls, which were two hundred feet in height, and at that ſtupendous elevation were refreſhed with water forced up by immenſe engines from the bed of the Euphrates.

But a farther knowledge of hydraulics was neceſſary to the *exiſtence* of a very large proportion of the Indian nation; and though, in the courſe of ages, they have, in reſpect to this as well as other ſciences, ſunk down into a very degrading ſtate of ignorance, the danger of periſhing by *famine* ſtill preſerves among them a portion of the ſcience ſufficient for the proper diſtribution of the waters, contained in their great tanks, over the champaign country, which is repreſented by M. Sonnerat as univerſally divided into parcels of about one hundred or one hundred and twenty yards ſquare.† In theſe that valued grain, the rice, which conſtitutes

* Diod. Sic. lib. i. p. 98.

† Sonnerat's Voyages, vol. ii. p. 130.

the principal food of the Indians, is depoſited and grows up to maturity in water only; but, as the greateſt part of the lands is dry and ſandy, hydraulic machines were neceſſary to elevate and abundantly diſtribute that water to the thirſty plant. Theſe machines are, indeed, extremely ſimple in their fabrication, but they are effective; engravings of them may be ſeen in Sonnerat.

Another danger equally alarming, that of periſhing by *thirſt*, impended over them if they totally neglected this branch of philoſophy; for, in regions remote from the great rivers, they only obtain water from wells ſunk to a vaſt depth in the ſand and clay; and, from theſe, the neceſſary fluid could not be obtained except by *pumps* and other engines of various conſtructions and dimenſions. They could not have conſtructed the canals and ſluices neceſſary to convey the water from one diſtrict to another over vaſt ſandy plains without ſome proficiency in this ſcience; nor could many of their mechanical operations, where fluids were concerned, as, for inſtance, when ſpirits and eſſential oils were to be extracted by diſtillation, be carried on without the uſe of *ſiphons* or ſimilar hydraulic veſſels.

PNEU-

## PNEUMATICS.

Having diſcourſed thus largely concerning the adoration paid by the Indians, on account of their important utility to man and life, to the elements of *fire* and *water*, it would be improper to omit noticing their equal veneration for the *æthereal* element, which was ſo great as to lead them to perſonify and exalt it into a deity under the name of Indra, the god of the firmament, a deity armed with all thoſe formidable inſignia, and inveſted with that unbounded empire over ſubject nature, which the Grecian mythologiſts have conferred on their Jupiter. The ſtormy prime miniſter of Indra, in the government of his wide aërial domain, is VAYOO, the god of the winds, who is expreſſively repreſented in their pictures as riding furiouſly, from one point of heaven to the other, on a ſwift antelope, and brandiſhing in his hand a ſabre gleaming like lightning.

In fact, the immenſe viciſſitudes of climate naturally to be expected in ſo extenſive a country as India, and the tremendous irregularities

of it which actually take place in certain diſtricts of that country, are the principal ſource of the great powers with which ſuperſtition has armed this imaginary divinity; for, Indra is not always the object of delight and love to the adoring Hindoo. If ſometimes he deſcend, like the æthereal Jove of Greece, in genial ſhowers, he is at other times attended by a ghaſtly train of deadly vapours and peſtilential blaſts. Thoſe who live on the coaſt, and feel the ſoothing influence of *air in agitation* in the cool and balmy breeze that blows every morning from off the ocean upon the land, have great reaſon to exult in the bleſſings beſtowed by Indra; while thoſe again cannot avoid trembling at his power, who breathe the burning atmoſphere, and contend with the drifted ſands, of the ſcorched plains of Berar. The cerulean fields, that conſtitute the domains of the Indian Diveſpiter, are in truth the ſcene of their wildeſt and, I may add, their moſt gloomy mythology: they are fraught with objects which excite alternate tranſport and diſmay. The comet portentouſly blazing through a vaſt tract of illumined æther filled them with dire and inexpreſſible alarms; with ſuperſtitious reverence they

marked

marked the coruſcations of the *Aurora Borealis*, or obſerved the boding meteor glide down the nocturnal heavens; and they heard the awful report made by its exploſion, amidſt the dead ſilence of night, with unutterable terror.

It is ſcarcely poſſible, therefore, to conceive a nation, who thus accurately obſerved the phænomena of the heavens; for, their mythological legends concerning Indra and his ſtormy prime miniſter are merely alluſions to thoſe phænomena; a nation, who from them drew preſages the moſt important and intereſting, to have been ignorant of the nature and properties of an element to which they had ſo minutely attended, and conſequently the principles of PNEUMATIC SCIENCE muſt in a degree have been known to them. They muſt have known that *air*, not leſs than *water* and *fire*, ſerved to form, as it were, the grand cement and univerſal bond of nature, equally pervading and cheriſhing the whole animal and vegetable world. On the lofty mountains, whoſe ſummits the firſt race of Indians, eſcaped from the deluge, choſe for their reſidence, Nature, the great chemiſt, as well as the ſun's powerful beam, acting more immediately

ately upon the atmoſphere of equatorial regions, would ſoon teach them its wonderful quality of rarefaction and expanſion; and its denſity and reſiſtleſs power would not fail to be diſcovered at the period of the monſoons, thoſe vaſt and ponderous columns of air in motion, which with irreſiſtible violence at one time ravaged the ſhores of the Peninſula, breaking down the ſtrongeſt trees, and, like the hurricanes of the weſtern world, ſweeping every object before them; and which at others diſperſed over the deep the rich cargoes of their various commerce, the produce of the ſilk-worm, and the jewels of Golconda. Hence, perturbed and terrified, this ſuperſtitious race beheld the aërial phænomena with reverential horror: every cloud has its directing dæmon, and every gale its attendant dewtah. Superſtition hears ſome perturbed ſpirit of the vaſty deep raging in the midnight ſtorm, and ſees the angry deity launching over the Gauts the terrific and irreſiſtible ſhaft of the tropical lightning.

How far the firſt race of Indians might carry into experiment and practiſe the philoſophical obſervations thus made by them on the operations of nature in that various clime,

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it is impoſſible to decide, till their philoſophical books ſhall have been more accurately examined; but, that they were no ſtrangers to the generative and invigorating influence of *air*, acting forcibly upon other elementary matter, and particularly on the watery element, is indubitably evident, from the univerſal traditionary doctrine which runs through all the coſmogonies of the Eaſt, that, at the beginning of time, the *wind of God*, or *a wind from God*, (for, by this perverted title they generally denominate the Πνευμα Αγιον of Scripture,) violently agitated the waters of the chaos, and rendered them prolific. We have ſhown before, that the coſmogony of the Phœnicians affirms the principle of the univerſe to have been a dark wind, turbulent and boundleſs; and, in the latter part of that deſcription, we read, that the *air* ſhining with *æthereal light*, by its fiery influence on the ſea and earth, winds were begotten, and clouds, and great defluxions of the heavenly waters.

The ancient philoſophers of India, like the ſtoics of Greece, who in all probability borrowed the doctrine from the Indian ſchools, which many of them viſited, or obtained them through

through the channel of Egypt, imagined a *fifth* element, formed of the more refined particles of igneous air, which they call the AKASS; that pure, tranſparent, luminous, æther, in which the planets and other celeſtial bodies roll. This ſubtile ſpirit, this penetrating fluid, they conceive to pervade all bodies, and to be the great principle of vitality and bond of all exiſtence. They talk concerning it with tranſport; but, amidſt their raptures, totally different from the atheiſtical fabricators of the Phœnician coſmogony, their greateſt and moſt venerated philoſophers of the VEDANTA ſchool never forget to advert to the SUPREME CREATIVE SPIRIT of the univerſe from which it emaned, his auguſt repreſentative and powerful agent in the animation and direction of boundleſs worlds.

A knowledge of pneumatic ſcience was alſo, in a great degree, neceſſary to the carrying on many of the mechanic arts for which the Indians were ſo famous; and if they were ſo far advanced in chemiſtry, in the earlieſt ages, as there is every reaſon to ſuppoſe they were, they muſt have required, for their furnaces, machines for collecting, compreſſing, and diſcharging, the current of air, in a body forci-

ble

ble enough to promote their reſpective operations; and theſe muſt, in conſequence, have been of various dimenſions, from thoſe that excited the intenſe flame, where the rugged ore of iron was fuſed, to the gentler blaſt neceſſary to perfect the exquiſite work of the goldſmith and the enameller. The invention of the BELLOWS is, indeed, aſcribed by Strabo to Anacharſis, the Scythian;* but it is far more likely to have originated among a race repreſented, from all antiquity, to have been practiſed in metallurgic ſcience, and devoted to thoſe mechanic arts, which moſt wanted the aſſiſtance of that uſeful implement.

It was alſo utterly impoſſible that mines could be worked to any great depth or extent, without the aſſiſtance of what are called *air-ſhafts*, or certain tubes formed of wood or metal, by way of vent for the diſcharge of fiery damps and ſulphureous vapours, and the conveyance of freſh air for reſpiration to the miner. In thoſe mines, they learned the nature of the various ſpecies of air, and, imitating what they there obſerved, were enabled, amid their myſtic rites, to put

* Strabonis Geograph. lib. vii. p 209.

in

in practice thoſe midnight phænomena which excited the wonder of the weak and the terror of the ſuperſtitious.

From the awful and terrific ſcenes exhibited in the MYSTERIES, from their acquaintance with the proceſs of making gunpowder, and a variety of other circumſtances that argue no ſuperficial knowledge of the properties and effects of different kinds of air, it may reaſonably be inferred that the old Indians were not entirely ſtrangers to ELECTRICITY; for, in fact, that fine ſubtile ſpirit, pervading all things, that fifth element, that *akaſs*, as they term it, ſeems to be no other than what modern philoſophers denominate the *electric fluid*. Indeed, Sir William Jones amply juſtifies this ſuppoſition in his Treatiſe on the Philoſophy of the Indians, declaring, that, without wiſhing to pluck a leaf from the never-fading laurels of Newton, he diſcovers, in Sanſcreet authors, a great part of his admirable philoſophy, eſpecially thoſe parts that relate to that ſubtile ſpirit which he ſuſpected to lurk concealed, but not dormant, in all bodies, and to cauſe "attraction and repulſion; the emiſſion, reflection, and refraction, of light; ELECTRICITY, calefaction, ſenſation, and

and muſcular motion; and that the Vedas abound with alluſions to a force *univerſally attractive*, which they aſcribe chiefly to the SUN, thence called Aditya, the ATTRACTOR."* The mention of the doctrine of attraction naturally leads to reflections on that of the MAGNET, whoſe power to attract iron they muſt have well known, if, as there is every reaſon to preſume, from their early voyages and their intimate connection in commerce with the Phœnicians, they had the knowledge and experience of the COMPASS in navigation, an experience which they might have obtained from Noah himſelf, to whom the Deity probably imparted the ſecret of its wonderful virtues, to guide the bark which contained the precious depoſit of all living creatures over the waters of the boundleſs ocean. Its attractive force could have excited no great ſurpriſe in a race, who, in their beautiful manufactures and ornamental furniture, made ſuch large uſe of the genuine ELECTRUM; that *amber* which has ever been in ſuch high requeſt in the cabinets and muſeums of Aſia, and the attractive properties

* Aſiatic Reſearches, vol. iv. p. 177.

of

of which were ſo well known, ſo much admired, and ſo often, in their writings, referred to by the Oriental as well as Grecian philoſophers.

## PAINTING.

From the regions of philoſophy, where much was of neceſſity left to analogy and conjecture, we come to fact and experience; and are now to inveſtigate the hiſtory of the progreſs of the ancient Indians in arts and manufactures, eſpecially in one art for which they have ever been famous, and with great juſtice, ſo far as a nation utterly ſtrangers to *perſpective* could obtain celebrity in this line of exertion.

It is probable that the unrivalled beauty of the objects, animate and inanimate, in the ſouthern diſtrict of India, the gaudy plumage of the birds, and the vivid colours of the plants and flowers, forcibly impreſſed upon the mind of the admiring Indian, firſt induced him to ſeize the pencil, and endeavour to imitate the ſtrokes of nature. Thoſe colours in the tropical regions, and under the beam

of

of a vertical maturing ſun, are exalted to an uncommon height of brilliancy, and, after the rains eſpecially, exhibit a ſcene the moſt pictureſque and lovely that the eye can behold.

Though their pictures, in conſequence of their ignorance of the method of diſtributing to advantage the lights and ſhadows of a piece, which the European artiſts call *chiaro-obſcuro*, are deſtitute of all *relief*; though alſo they pay very little attention to the rules of juſt *proportion* in delineating animal figures on the ſurface of ſilk and cotton, whatever care they might have taken in the ſculptured images of human figures, in which they could ſcarcely be guilty of any groſs offence againſt thoſe rules; and though the laws of perſpective, ſo neceſſary to produce effect in that art, are, as juſt remarked, unattended to by the Indian artiſts; yet the delicate ſtrokes of the Indian pencil, eſpecially when employed in portraying the lovely plants and flowers of their country, added to the vivid and permanent glow of the colours they made uſe of, have, in every age, gained them the admiration of all nations, who have given convincing proof of that ad-

miration, by ſuffering India, in exchange for the commodities thus richly ornamented, to engroſs the bullion of the whole world.

Religion itſelf ſeems to have greatly promoted as well as ſanctioned this art in India; for, we have ſeen, in the fifth volume of this work, that, from the very dawn of their religious inſtitution, the various caſts have been diſtinguiſhed by different colours, it being the indiſpenſable duty of the Brahmin, when in the morning he opens the portals of the pagoda for public worſhip, at their entrance, to mark the crowd of votaries on the forehead with the TILUK, a painted longitudinal or parallel line, either of vermilion or ſaffron, as they may happen to belong to the ſect of Veeſhnu or Seeva. Brahma, Veeſhnu, and Seeva, are themſelves painted of three diſtinct colours; and indeed all the deities in their pagodas are gaudily decorated in the ſame manner as were thoſe of their forefathers, the Chaldæans, according to the imagined colours of their ſeven *dii majores*, the planetary train.

As I am bound by my propoſals to compare the progreſs in ſcientific attainment of the Indians with that of their Aſiatic and Egyptian neighbours,

neighbours, I ſhall take that parallel ſurvey previouſly to any particular diſcuſſion of the proceſſes employed by the Indians in painting on ſilk, cotton, and other materials.

Plato is of opinion that the Egyptians had practiſed painting during ten thouſand years.* Pliny, ſomewhat more moderate in his calculation, fixes the period of its commencement at ſix thouſand years† before his time. What particular object either of theſe authors could have in view, by pretending thus accurately to determine the epoch in queſtion, it is difficult to ſay; but, in various preceding accounts of Egyptian remains, preſented to the reader from Pococke and Norden, we have ſeen, that, both on the roofs of the temples of the Thebais, and on the walls of the grottoes that border on the Nile, the colours and gilding, after the lapſe of nearly three thouſand years, had preſerved unimpaired their dazzling brilliancy. This ſingular phænomenon may in part be explained by the clearneſs of the atmoſphere in a country where ſcarcely a cloud obſcures the horizon, and where very little rain falls, and

* De Legibus, Dialog. 2. † Pliny Nat. Hiſt. p. 301.

partly in the ſuperior excellence and durability of the colours themſelves, which, in all likelihood, they obtained from India, or rather brought with them when their anceſtors firſt emigrated from its ſhores; ſince the RED and the BLUE, the ſtandard colours of that country, are particularly noticed by thoſe travellers as the predominant ones.* Thoſe celebrated writers of antiquity, therefore, by ſuch ſtrong expreſſions, could only have meant to deliver it as their opinion, that, for the depth and freſhneſs of the colours, they were well calculated to have laſted during thoſe extended periods. To be convinced, indeed, of that ſuperior excellence, we need only attentively examine the hieroglyphic painting on the mummies in the Britiſh Muſeum, which cannot be of a date greatly inferior to three thouſand years; for, both the gilding on the face of the one, and the pictured imagery on the other, are as freſh as if not above a century old.

If we caſt our eye back towards Aſſyria, in the temple of Belus, as deſcribed by Diodorus, we ſhall find a very early and aſto-

* Lucas, vol. i. p. 99. Pococke, vol. i. p. 199. Bruce's Travels, vol. i. p. 126.

niſhing

niſhing ſpecimen of this art in Aſia. The hand of the painter had decorated the walls and the cieling with emblematical deſigns alluſive to the birth of nature and the firſt principles of things: ſome of the figures, like thoſe of India, combining in one androginous body the two ſexes, an undoubted perverſion of that text, *male and female created he them*; and others being compounded of the parts of man and beaſt. This marked reſemblance in the ſymbolical paintings of the two nations affords another ſtriking inſtance of the truth of the grand pervading argument of theſe volumes, founded on the baſis of Scripture, that Chaldæa (not Scythia, as Bailly contends) was the parent country of the Indians as well as of the whole human race. Let it not be forgotten that they could not have formed theſe vivid colours, or fixed them ſo immutably, without a very conſiderable advance in chemical ſcience. The figures in theſe pieces of imagery were doubtleſs very rudely deſigned and ill proportioned, ſuch as might be naturally expected in the infancy of ſcience; but the energy of the expreſſion and the luſtre of the colours are not affected by this conceſſion.

A farther evidence of the progreſs of the Aſſyrians in this art is afforded in the *paintings* which are recorded by the ſame author to have decorated the walls of the magnificent caſtle and palace, afterwards built, by Semiramis, at Babylon, on which were painted, to the life, all the kinds of animals in their natural colours; and, as theſe colours are expreſſly ſaid by Diodorus to have been laid on the bricks, *when newly made*, and afterwards *burnt in*, it ſhews that they underſtood the art of working in ENAMEL. We muſt not wonder, therefore, to find the Indians, in a few ages after, excelling in this kind of work as well as in the manufacture of the fineſt porcelain.

With reſpect to Perſia, I conſider what in preceding volumes has been related concerning the ſplendid decorations of the roof of the cave of Mithra, the *blue* vault ſpangled with ſtars of *gold*, the zodiacal conſtellations which emblazoned the walls, and the animals of that zodiac, all in their natural *colours*, as alone affording very ample proof of their advance in this art. That remarkable theological ſymbol, alſo, which they uſed in thoſe caverns, the ladder, with the *ſeven* gates named

named from the *ſeven* metals, aſcending to heaven, may ſerve to prove that they knew ſufficient of chemiſtry, even at that early period, to exalt and to fix thoſe colours. Hence the Perſian works in embroidery, their rich tapeſtries, and carpets of flowered ſilk, were in not leſs high requeſt through all antiquity than the painted cotton and fine linen, or *ſindon*, of India. Before I quit this ſubject, I cannot help remarking the ſtriking ſimilarity between the ladder that reached to heaven, in Abraham's viſion, and this ſymbolic ladder of the Perſian magi. Terah, the father of Abraham, muſt have been ſkilled in metallurgic ſcience; for, he was a maker of TERAPHIM, *i. e.* of idols caſt in braſs or copper, under the aſpect of certain planets. Either, then, Abraham, ſeizing this idea of the magi, ſanctioned a ſymbol, which was only a harmleſs, but expreſſive, emblem of the gradual aſcenſion to heaven of the purified ſoul, in the immortality of which the Perſians believed; or, what I own is more probable, the Pagans from his dream caught the image, and introduced it into the myſterious rites of their degraded ſuperſtition. At all events, the fact proves the high antiquity of the ſymbolical alluſion,

and not leſs of their chemical knowledge, ſince Abraham flouriſhed near two thouſand years before Chriſt.

To return to the Indians; and to conſider, firſt, their method and the materials uſed in painting on cotton. The more pure from mixture, the more lively and beautiful, though not more permanent, are ſaid to be the colours. In their firſt efforts to excel in this line, the Indians probably uſed only the ſimple expreſſed juice of flowers and ſhrubs, the moſt vivid they could ſelect. Foſſil earths of various colours, as ochre, the yellow and the red, might afterwards be employed; and, laſtly, as they advanced in chemical knowledge, minerals lent their aid to exalt their tints, to give them ſtability, and increaſe their variety. The two prevailing colours on the ſilks and cottons imported from India are the deep blue and the bright red; and the baſis of theſe is well known to be *indigo* and *gum-lac*. Indigo is formed from the leaves of a plant, which grows about two feet high, called Indicum by the ancients, from the river Indus, down which it was brought from Lahore, of which city formerly it was the ſtaple commodity. Its native appellation

pellation is NILI, *literally* BLUE. The fineſt ſort is however cultivated about Biana and Agra, and the colouring ſubſtance is the *fecula*, or dregs, made by means of water and oil-olive out of thoſe leaves. It is brought to us in cakes of ſo intenſe a blue as to appear almoſt black; in conſequence of which, when employed by the painters, it is obliged to be ground up with white, or it could not be uſed with effect. That ſpecies which is brought from the Weſt Indies is of inferior fineneſs to what is imported from the Eaſt; for, it is made of the whole plant, ſtalk, and leaf, macerated together, and conſequently has many impurities blended with it. The Weſt-Indian ſpecies is, therefore, only uſed in dying, while the finer ſorts of indigo are ſtill uſed by painters both in Aſia and Europe. To render indigo in this country totally ſoluble for the purpoſe of dying, it requires an equal quantity of *fixed alcaline ſalt*. On digeſting this with a gentle heat, the matter firſt appears copper-coloured, then of a deep green. The ſubſtance dipped in it comes out perfectly green; but, when expoſed to the air, almoſt inſtantly changes to a fine blue.

The

The *gum-lac*, or LACCA of the ancients, has been miſtaken for a vegetable production, but is in fact an animal ſubſtance, ſomewhat of the nature of cochineal, and is the production of an inſect, reſembling a bee, which depoſits this glutinous ſediment on the branches of certain trees, adhering to which it is brought to us, and thence bears among commercial men the technical name of *ſtick-lac*. The colour is obtained by ſimply boiling the ſtick-lac in water, then filtering the decoction, and evaporating the ſuperfluous humidity. With theſe two colours, but not theſe only, ſince India affords innumerable other vegetable as well as mineral ſubſtances adapted to the purpoſe, are the beautiful callicoes produced in her looms, painted or ſtained; and, though the ingenuity of European artiſts, with the aid of highly improved chemiſtry, have, in the place of theſe beautiful and durable colours, invented others poſſibly better adapted to painting in its preſent advanced ſtage of excellence, when the gradation of light and ſhade in pictures is to be ſo diſtinctly marked, yet none have hitherto rivalled thoſe of India in united brilliancy and permanency; and, could the genuine

Oriental

Oriental *indigò* and *lac*, in their pureſt ſtate, be obtained, they would perhaps ſtill prefer the former to the beſt ultramarine and Pruſſian blue, and the latter to even vermilion, carmine, and all the factitious *lacs* in the whole claſs of red colours. In the practice of the Indian artiſt, however, there is no viciſſitude; the mode of painting and dying uſed twenty centuries ago, when Greece and Rome exchanged their hoarded bullion for her productions, ſtill prevails; the cottons are prepared by ſome chemical proceſs, unknown in Europe, to receive the various colours intended to be impreſſed either by the pencil or in the vat, and they retain them, while the ſubſtance on which they are impreſſed exiſts, with little alteration.

To be more particular in regard to their mode of painting the cottons in India. M. Sonnerat, after confirming what has been juſt obſerved concerning the brilliancy of the colours being heightened by ſome previous preparation, and the quality of the water in which the linen is whitened, adds; "When the outline is drawn, the linen receives the firſt waſhing; an ordinary workman then extends it on the ground, and, ſitting down, puts on the

the principal colour. After a ſecond waſhing, a more ſkilful artiſt extends the cloth on a ſmall narrow table, and marks the ſhades. Their pencils are made of a piece of BAMBOO, pointed and ſplit; an inch above the point is a cuſhion of wool, to retain the colours, which the artiſt preſſes to make the liquid deſcend the length of the reed."* In the dying of cottons of different colours, an art practiſed by ancient as well as modern Indians, a ſtill greater proficiency in chemiſtry was neceſſary to fix the various tints. In painting theſe cloths they undoubtedly purſued a proceſs ſomewhat ſimilar to the Egyptians, ſo minutely deſcribed by Pliny: after having drawn the outlines of their deſign upon the piece of linen, they filled each compartment of it with different ſorts of gums, proper to abſorb the various colours; ſo that none of them could be diſtinguiſhed from the whiteneſs of the cloth; then they dipped it for a moment in a cauldron, full of boiling liquor prepared for that purpoſe, and drew it thence painted in all the colours they intended. And, what was very remarkable, the colours neither decayed by

* Sonnerat's Voyages, vol. ii. p. 122.

time

time nor moved in the waſhing, the cauſtic impregnating the liquor wherein it was dipped having, during the immerſion, penetrated and fixed every colour intimately through the whole contexture of the cloth.* Thus was the variegated *veil of Iſis* manufactured; thus were the linens that folded the Egyptian mummies ſtained; and thus only could the chintzes of India receive their beautiful and varied dies. De Pauw aſſerts, that, with the Egyptians, only one dark dye was uſed; and, by the aid of *acids* and *alkali*, the cloth received three or four different tints. It was neceſſary, he adds, to trace previouſly all the figures with a feather or a pencil, that the *cauſtic* and *alkaline* liquids might be diſtributed exactly on the places where they were intended to produce effect.†

How very early the ancients were acquainted with the art of extracting colours from vegetables, and applied them in dying, may be learned from Geneſis, where it is ſaid, that, to diſtinguiſh the firſt-born child of Tamar,

* Plinii Nat. Hiſt. lib. xxxv. cap. ii. ſect. 42.

† De Pauw's Philoſophical Reflections on the Egyptians and Chineſe, vol. i. p. 206.

*the*

*the midwife tied a ſcarlet thread about its arm.** This, it will be obſerved, was in the eighteenth century before Chriſt; and in the time of Moſes, two or three centuries after, we read in the following paſſage not only of the great progreſs of the ancients in the art of dying, but in ſeveral others intimately connected with the ſubject of theſe Diſſertations.

*And this is the offering which ye ſhall take of them; gold, and ſilver, and braſs,*

*And blue, and purple, and ſcarlet, and fine linen, and goats' hair,*

*And rams' ſkins dyed red, and badgers' ſkins, and ſhittim-wood,*

*Oil for the light, ſpices for anointing oil and for ſweet incenſe,*

*Onyx-ſtones, and ſtones to be ſet in the ephod and in the breaſt-plate.*†

At the ſame time how very familiarly the ancients muſt have been acquainted with ſome chemical proceſs for permanently fixing colours is evident from Arrian, who relates, that, amidſt other ſpoil found at Suſa by Alexander, were five thouſand quintals of Hermione pur-

* Geneſis, cap. xxxv. v. 28.

† Exodus, cap. xxv. v. 3-7.

ple,

ple, which exceeded that of Tyre in beauty, and had been hoarded up there by the Perſian ſovereigns during the ſpace of one hundred and ninety years, but the colour of which was as freſh and beautiful as if juſt come from the dyer.

Thus far have we conſidered the progreſs of the ancient Indians in the art of painting on cotton: their ſilks were probably enriched with the ſame ſplendid colours, in a way as nearly ſimilar as their different texture would allow. But as theſe rich ſilks and theſe beautiful cottons have ſo immemorially formed the ſtaple commodity of the trade carried on between India and Europe, a conciſe account of the origin and manufacture of both is, in ſome degree, indiſpenſable in a work of this kind, and will, probably, be not diſpleaſing to the reader: — and, in the firſt place, concerning the fabrication of cotton, called *Goſſypium* by the Romans, the more immediate ſubject of our inquiry.

Of the vegetable that produces this uſeful commodity, there are ſeveral varieties, from the creeping ſhrub to the lofty tree; but that, from which the fineſt and moſt valuable cotton is produced, is a plant, of moderate ſize, growing

growing abundantly, and with little aſſiſtance from culture, in Bengal and on the coaſt of Coromandel. After producing very beautiful flowers, it is loaded with a fruit as large as a walnut, whoſe external coat is entirely black. When completely ripe, it opens of itſelf, and diſcovers a downy ſubſtance, extremely white, which is the cotton encloſed in oval capſules. When gathered, the cotton is, in ſome places, thrown upon a floor and *threſhed*, in order that it may be ſeparated from the black ſeeds and huſks that encloſed it. In other places, to ſeparate the cotton from the ſeeds, they uſe little machines, which being played by the motion of a wheel, the cotton falls on one ſide and the ſeed on the other. When thus ſeparated, the operation of *carding* takes place, which the authentic Sonnerat, who wrote from what he ſaw in India, thus deſcribes. " The machine to *card cotton* is fabricated with great ſimplicity; it is compoſed of a piece of wood ſix or ſeven feet long. At each extremity a catgut ſtring is tied, which, on touching, forms a ſound, on which account it is called *violon*. The violon is ſuſpended by a ſtring, from the ſtring of a bow, faſtened to the ceiling. The workman,

man, with one hand, holds the violon in the middle; and with the other, by means of a piece of wood which has a pad at the end of it, briſkly ſtretches the catgut, which, flying back, beats the cotton, takes it up with force, ſwells it, ſeparates the duſt, and renders it proper to be ſpun. The elaſticity of the bow which holds the violon makes it very eaſy for the workman to move it from one end to the other over the heap of cotton which he is beating."*

The next ſtage is the *ſpinning* of the material, and, in this proceſs, the ſame ſimplicity of operation and inſtruments is again conſpicuous; for, according to the ſame author, the apparatus of the weaver "conſiſts only of two rollers, placed on four pieces of wood, fixed in the earth, under the ſhade of ſome large tree; of two ſticks, which traverſe the warp, and are ſupported at each of the extremities, the one by two ſtrings, faſtened to the tree under which the loom is placed, and the other by two other ſtrings, tied to the workman's feet, which gives him a facility of removing the threads of the warp, to throw

* Sonnerat's Voyages, vol. ii. p. 134. Calcutta edit.

the woof."* Mr. Crauford tells us, that the fine muſlins are woven within doors, the threads being too delicate to be expoſed to the agitation of the air; but that it is by no means uncommon to ſee whole groves full of looms, employed in weaving the coarſer cloths.†

Finally, to complete the intereſting authenticated account of this branch of manufacture, in a ſtill more recent publication, juſt come to my hand, the proceſs of preparing it is thus detailed. "After the cotton has been carded, it is ſpun out into ſuch delicate threads, that a piece of cotton cloth twenty yards in length may almoſt be concealed in the hollow of both hands. Moſt of theſe pieces of cloth are twice waſhed; others remain as they come from the loom, and are dipped in cocoa-nut oil, in order that they may be longer preſerved. It is cuſtomary alſo to draw them through *cangi*, or rice-water, that they may acquire more ſmoothneſs and body. The *cangi* is ſometimes applied to cotton articles in ſo ingenious

* Sonnerat's Voyages, vol. ii. p. 128. Calcutta edit.

† Sketches, p. 328.

a manner that purchaſers are often deceived, and imagine the cloth to be much ſtronger than it really is; for, as ſoon as it is waſhed, the *cangi* vaniſhes, and the cloth appears quite ſlight and thin.

"There are reckoned to be no leſs than twenty-two different kinds of cotton articles manufactured in India, without including muſlin or coloured ſtuffs. The latter are not, as in Europe, printed by means of wooden blocks, but painted with a bruſh made of the fibres of the rind of the cocoa-nut, (that is, in Malabar,) which, when beat, approaches near to horſe-hair, becomes very elaſtic, and can be formed into any ſhape the painter chooſes. The colours employed are indigo, the leaves of which plant yield that beautiful dark blue with which the Indian chintzes, coverlets, *tappiſendis*, and other articles, are painted, and which never loſes the ſmalleſt ſhade of its beauty. Alſo *terra merita*, called *Curcuma*, or Indian ſaffron, a plant which dyes yellow; and, in the laſt place, gum lac, together with ſome flowers, roots, and fruits, which are uſed to dye red. With theſe few pigments, which are applied ſometimes ſingly, and ſometimes mixed, the Indians produce on

their cotton cloths that admirable and beautiful painting which exceeds every thing of the kind exhibited in Europe.

"The French, Engliſh, and Dutch, have endeavoured to imitate theſe articles; but, notwithſtanding all their labour and art, they have never yet been able either to produce theſe colours from the vegetable kingdom, or to attain to the ſame fineneſs in their cloth. No perſon in Turkey, Perſia, or Europe, has yet imitated the *Betille*,* made at *Maſulipatan*, and known under the name of *Organdi*. The manufacturing of this cloth, which was known in the time of Job, the painting of it, and the preparation of the colours, give employment in India to male and female, young and old.

"It may with truth be aſſerted, that, in ſpinning, weaving, and dying, the Indians excel all other nations in the world."†

Thus, adds the judicious M. Sonnerat, we ſee that, in India, the hand, and two or three ſimple utenſils, perfect works in which we make uſe of a hundred. In this

* "A certain kind of white Eaſt-Indian chintz."

† March, 1800. A voyage to the Eaſt Indies by the Miſſionary Bartolomeo, p. 397-399.

reſpect,

reſpect, the Indian appears the moſt diſtant from the European. We admire the induſtry of the ſavage Zealander, who, with a piece of ſtone formed like a hatchet, makes his boats, and completes all his joiners work. We are ſurpriſed when told that thoſe beautiful muſlins, ſo much ſought after, are made on looms compoſed of four pieces of wood fixed on the ground; but we do not reflect, that, when *our* anceſtors inhabited foreſts and lived on acorns, *they* worked with equal ſimplicity.*

With reſpect to the mode of *dying* theſe cottons thus ſimply wove and the ſubſtances uſed in their dyes, I am able to add little more than what has been previouſly mentioned; and notwithſtanding what has been urged by Father Bartolomeo, it is by no means clear that the Indians do not poſſeſs, traditionally handed down to them from their anceſtors, ſome ſecrets relative to this ſubject which they have not imparted to foreigners. By means of the commerce which they anciently carried on with the Phœnicians they might have learned thoſe ſecrets; for it

* Voyages, vol. ii. p. 126. Idem edit.

has been ſuſpected that the TIN which they ſo abundantly imported from the Caſſiterides, or Britiſh iſles, was made uſeful in their famous purple, and that they greatly exalted and fixed the colour by ſolutions of that metal in the dying materials.* What was really known to the Romans concerning the mode of dying the Tyrian purple has been very minutely detailed by Pliny, who informs us, that after having procured from the MUREX, or purple-fiſh, a quantity of the colour ſufficient for the purpoſe, they mixed it with ſalt, in which condition it remained during three days. To eight gallons of water they then added one hundred and fifty pounds of colour, which they boiled over a gentle fire, ſkimming the ſurface of the liquor from time to time, and occaſionally dipping in it a lock of wool to mark the progreſs to maturity of the *materia tinctoria*. In about five hours it became perfectly clear, bright, and fit for uſe.† The prepared wool was then ſteeped in the dye five hours; it was then taken out, dried, carded, and again

* See Pryce's Mineralogia Cornubienſis, p. 17.

† Plinii Nat. Hiſt. lib. ix. cap. 38.

ſoaked

ſoaked in the vat; and, being once more dried, was delivered to the manufacturer to be ſpun and wrought into cloth. This was the celebrated Διβαφα, or double-dyed Tyrian purple, a pound of which, we are informed by the ſame author, was valued, in Rome, at a *thouſand denarii*, or upwards of thirty-two pounds of our money.* Whether the Tyrians, however, were or were not accuſtomed to uſe ſolutions of the metals for this purpoſe, it has been obſerved by a good judge in theſe matters, as a thing *extremely probable* at leaſt, that the Indians of the preſent day, to impart the fine, bright, and durable colours to their calicoes and chintzes, make uſe of metalline ſolutions, ſince ſome of thoſe ſtained calicoes having been kept for forty or fifty years, the bright colours have been obſerved to *eat out* the cloth, exactly in the ſame manner as the corroſive acid ſpirits, which diſſolve metals, are found to do; and hence he concludes that it would be attaining to a high excellence if European artiſts, in painting and ſtaining, could prepare the fineſt colours without employing

* Plinii. Nat. Hiſt. lib. ix. cap. 39.

either *acid* or *alkaline* ſalts, which are generally apt to prey upon the cloth, or other ſubſtance, ſtained with them.*

But, leaving the region of ingenious conjecture, we come, in the ſecond place, to conſider the ſtill more curious manufacture of SILK by the Indian mechanic, a manufacture for which they were as immemorially famous as for their admirable Sindon.

The little animal, the BOMBYX, that produces this delicate thread, is ſcarcely leſs a wonder in the world of natural hiſtory than its production formerly was in the commercial world. The body of this inſect, a ſpecies of the *phalæna*, is compoſed of a great number of elaſtic annuli, cloſely united or rather interwoven with one another, and its heart, or rather a ſeries of numerous hearts connected together, extends the whole length of its body. The beating of this chain of hearts, or rather, to ſpeak more philoſophically, the motion of *ſyſtole* and *diaſtole*, may be very diſtinctly perceived; and to obſerve the manner in which the vital fluid paſſes from one to the other forms a very curious and in-

* Dictionary of Trade and Commerce; article Calico.

tereſting

tereſting ſpectacle. They were doubtleſs intended to accelerate the circulation of the fluids through the body. In the cavities of the belly, adjoining to the ventricle, the microſcope diſcovers an infinite number of ſmall veſſels, forming a long bag or canal, in which is depoſited the glutinous liquid whence the ſilk is formed, and theſe veſſels communicating by a thouſand winding meanders with the mouth, the little creature is enabled thereby to collect together and diſcharge at pleaſure their contained fluids, which are hardened by the air into that delicate ſort of fibre of which the web or ball conſiſts. This little ball is the laſt effort of the expiring inſect, whoſe ſhort period, at leaſt in that ſtate of its exiſtence, is a year, and it is fabricated at the expenſe of its *being*, as a worm; for, having formed its nidus, it becomes metamorphoſed into an aurelia, and continues in that ſtate without any ſigns of life or motion, till in a few days, if not deſtroyed, as they generally are to prevent the ball being injured, it becomes a butterfly, and makes its way out of its ſilken ſepulchre, in which it lay as it were interred, into fields of æther. Theſe balls, when taken from the mulberry-trees from which

which they are ſuſpended, are generally of the ſize of a pigeon's egg, are of a yellow colour, of an admirable conſtruction, and are ſaid to be compoſed of threads ſpun out, by the labour of the indefatigable architect, of many hundred yards in length.

Having thus deſcribed the curious animal from which this valuable article of Eaſtern commerce is produced, we come to the conſideration of the commodity itſelf, the mode of its fabrication by the Indian artiſt, and other intereſting matters connected with its hiſtory.

Silk derives its Latin name of SERICUM, from the *Seres*, a nation of northern Aſia, by whom were doubtleſs intended the Chineſe; but of the hiſtory of the commodity itſelf, or of the people who manufactured it, the Romans ſeem to have been alike ignorant. Some of them conſidered it as the white down growing on the leaves of a certain Eaſtern tree; while others thought that it was produced from the entrails of a kind of ſpider, which they denominated SER; but all had very confuſed notions relative to its origin and fabrication. The ſmall quantity of ſilk then produced by Serica was probably brought by

by caravans, over the deſerts, to the more weſtern marts of Aſia, and thence diffuſed among its luxurious ſovereigns and nobles; for, in thoſe early periods, it was only appropriated to the higheſt orders of ſociety. I cannot, however, help being of opinion, that Serica was neither the original country whence ſilk was brought, nor that in which it was then moſt abundantly produced. The general principle on which this book proceeds leads to a different concluſion, and India appears to be the parent country of that valuable manufacture. How early, indeed, both the occupations above mentioned of cotton and ſilk weaving muſt have commenced in India is evident from this circumſtance, that in the important account of Hindoo claſſes, from Sanſcreet authorities, in the fifth volume of Aſiatic Reſearches, expreſs mention is made of the tribe of *weavers*, under the title of TANTRAVAYA, in the original grand diviſion of the Indian nation by MENU. The author juſtly remarks, that "the tribes of PUNDRACA, *feeders of ſilk-worms*, and PATTASUTRACARA, or *twiſters of ſilk*, deſerve particular notice; becauſe it has been aſſerted, that *ſilk* was the

the produce of China alone, until the reign of the Greek emperor Juſtinian, and that the laws of China jealouſly guarded the excluſive production."* The frequent mention of ſilk, however, in the Inſtitutes, and other the moſt ancient Sanſcreet books, (even according to the confeſſion of this author,) does, in my opinion, go very far to prove the ſuperior antiquity of this branch of manufacture among the Indians, from whom the Chineſe, when they emigrated, carried away with them the rudiments and utenſils, as they did of many others. It was, indeed, impoſſible from the nature of the country, interſected with rivers and abounding with marſhes, that China could have been inhabited and cultivated in earlier periods after the deluge than Perſia and India, (famous in all periods for *ſilk* and *brocades*,) and the invention is therefore here, I truſt, juſtly referred to the moſt ancient ſettlers. The region about *Serhind* in the ſoobah of Delhi, a ſoobah mentioned in the Ayeen Akbery as *abounding in ſilk-worms*,† was probably the

* Aſiatic Reſearches, vol. v. p. 62.

† Ayeen Akbery, vol. ii. p. 106.

country

country where the firſt ſilk-manufactories were eſtabliſhed, and *muſt* conſequently be the *Serinda* whence, Procopius informs us, *ſilk* was brought in the time of Juſtinian.

The firſt ſtep taken to prepare the ſilk for the manufacture is to clear it of the gummy ſubſtance which adheres to it, and which is done by throwing the balls into a cauldron of boiling water, which relaxes and purifies it; and then *winding* and *reeling* it off, as it is termed, into ſkeins on proper frames, which are alike ſimple with thoſe on which they card and ſpin the cotton threads, and are uſed with ſimilar dexterity by the pliant and rapid fingers of the Indian artiſt. It is then bleached, or blanched, by being repeatedly ſteeped in the lees of the burnt aſhes of certain Indian plants, together with thoſe of ſoap, mixed with a ſmall portion of indigo, which gives the bluiſh caſt always obſerved in white ſilks. The *throwſter* then performs his taſk by reiterated twiſtings of the threads; after which it is conſigned to the weaver to be formed into veſts, ſaſhes, and other ornamental fabrics for apparel and houſehold-furniture.

The

The proceſs of *dying* the ſilk commences with a ſecond decoction, and ſcouring of the ſubſtance again with ſoap-lees; after which it is ſteeped in alum-water, preparatory to receiving the various colours which that ſalt is uſeful in fixing. The *painting* of the ſilks is done in the ſame manner as the cottons, with the difference only of abler artiſts and more delicate pencils being employed. The *weaving* it into tapeſtry and carpets, an art in very early practice among the Indians and Perſians, is among the moſt curious and elaborate efforts of Indian ingenuity, and, the ſilk being the fineſt in the world, the work would be the moſt valuable of any produced by the artiſts of Aſia, were the elegance of the *deſign* and the juſtice of the *perſpective* at all correſpondent to the fineneſs and beauty of the materials. The greateſt part, however, of the ſilk produced in Bengal and other parts of India is exported *raw*, and in its original yellow colour. In this ſtate many thouſand bales, weighing after the rate of one hundred and fifty pounds each, are annually imported into Europe, and evince as well the immenſe quantities of ſilk-worms bred in that country

as

as the unwearied induſtry of the natives in the cultivation of them.

Silk having been thus abundantly and immemorially made in India, and probably in ſtill greater profuſion in China, it is rather ſurpriſing that this valuable article ſhould, from its ſcarcity, be eſteemed at Rome of equal value to its weight in gold, and continue ſo for two hundred and fifty years, till the time of the Emperor Aurelian, who is ſaid to have refuſed his empreſs a ſuit of ſilk, on account of its exceſſive dearneſs. When the ſeat of empire was transferred to Conſtantinople, the Roman nobility, being nearer the region where it was fabricated, and ſparing neither pains nor coſt to obtain all the articles of Eaſtern luxury, were univerſally clothed in veſts of ſilk; but their Perſian neighbours and rivals, who for a time monopolized that lucrative branch of commerce, ſold it in the Byzantine markets at ſo exorbitant a price, as incited the Emperor Juſtinian to many earneſt but fruitleſs efforts to obtain a part of that trade by other leſs difficult and expenſive channels. While engaged in theſe ſpeculations, an incident occurred which greatly facilitated his deſign of wreſting this monopoly

monopoly from the hands of the Perſians, and terminated in making his own capital the principal mart to Europe of that envied manufacture. Dr. Campbell having entered pretty much at large into this ſubject, and traced the progreſs of this traffic to the Britiſh iſles, as the ſubject alſo deſcends to ages below the period of Indian Antiquities, and as I have many other intereſting matters ſtill to inveſtigate relative to the arts and ſciences of the Indians, the reader will excuſe my inſerting the account of that well-informed writer.

Two Perſian monks, that had travelled to the Indies, went to the emperor, and told him, that they could very eaſily ſettle that manufacture amongſt his ſubjects, ſo as that they might never be under the neceſſity of dealing with any ſtrangers, much leſs with the Perſians, for that commodity. This ſilk, ſaid they, which is ſo precious here, is, in SERINDA, (the moſt populous and moſt civilized country in the Indies, where we have ſpent many years,) ſpun by certain little worms, which inſtinct they receive from nature. As for theſe worms, it is impoſſible to tranſport them; but their eggs may be brought thence without any difficulty, and hatched

hatched here by giving them a certain degree of heat.

Such were the propoſals made by the monks to Juſtinian, who readily cloſed with them, making them great promiſes, in caſe they were able to bring this matter to bear, which, without much difficulty, they did; for, returning to the Indies, they brought thence a conſiderable quantity of the eggs, nouriſhing the worms, when they came out, with the leaves of mulberries; and thus, according to Procopius, was the art of making ſilk introduced into the Greek empire.*

This tranſaction fell out *A. D.* 550, but it was a long time before it ſpread itſelf much beyond the bounds of the Greek empire; for, we find, that, *A. D.* 1130, Roger, King of Sicily, having conquered a part of Greece, brought over into his own country the art of managing ſilk-worms, which was quickly transferred thence to Calabria, and other parts of Italy, where it flouriſhed for ſome ages, before it was transferred to the ſouthern parts of France, which, the great hiſtorian

* Procopius de Bello Gothic. lib. iv. cap. 17.

Mezeray tells us, happened under the reign of Francis the Firſt, in which, however, he is deceived; for, Lewis XI. *A. D.* 1470, introduced it into his dominions, and ſent for perſons, ſkilful in the art of managing ſilk, not only from Genoa, Venice, and Florence, but alſo from Greece; and, by his letters patent, dated in the year 1480, granted them conſiderable privileges. But the price of this commodity was ſtill kept up at a great height.

That magnificent prince, Henry VIII. wore commonly woollen hoſe, unleſs by chance he had a pair of ſilk from Spain. His ſon, Edward VI. had a pair of ſilk ſtockings preſented him by Sir Thomas Greſham, which preſent of his was much taken notice of. Queen Elizabeth, in the third year of her reign, had a pair of black knit ſilk ſtockings given her by Mrs. Montague, and ſhe never wore worſted afterwards. In the year 1600, Mr. William Lee, a native of Nottingham, invented the art of frame-work knitting, which has been ſince carried, with the manufacture itſelf, in all its various branches, to ſuch a high

point

point of excellence and national importance.*

## PORCELAIN, GLASS, and COLOURED STONES.

The great number and variety of the ſpecies of *argillaceous earth*, which abound in this region of Aſia, together with the plaſtic property of clay, when merely moiſtened with water, would naturally lead the Indians to engage in works of pottery, which afford ſo excellent an opportunity of indulging a fancy peculiarly lively as theirs, in the fabrication of ornamental vaſes and other elegant articles adapted either to domeſtic uſe or foreign traffic. Devotion operated as powerfully towards advancing this kind of manufacture as the former; it taught them, as yet ſtrangers to ſculptured images, to mould the figures of their avatars, and all the ſymbols of their complicated mythology, of the pureſt kind of this brilliant clay; to harden them in the fire; to cover them with gold and azure, the colour of the ſun and ſkies from which they

* Campbell's edition of Harris's Voyages, vol. i. p. 506.

emaned; and to exalt them on high in their abodes, as a kind of guardian *penates*, the conſpicuous objects of their reverential reſpect.

Though their firſt efforts in clay and plaſter muſt of neceſſity have been very rude; yet time, practice, and increaſing idolatry, could not fail to improve the Indian artiſt in this as well as other branches of mechanics; and they would make gradual advances in it till they were able to complete thoſe more elegant ſpecimens of ſkill, in porcelain, which were ſo highly valued by the old Romans; for, the *vaſa murrhina*, though by ſome conſidered as fabricated of *chryſtal*, and by others of *agate*, were, doubtleſs, only a finer ſpecies of Oriental porcelain. Theſe, we are told by Pliny, were in ſuch high requeſt in the capital of the world as to be eſtimated, ſome that held three ſextaries only, at *ſeventy*, and others of ſtill larger dimenſions, at *three hundred talents*.*

Martial calls theſe vaſes *pocula maculoſæ murrhæ, i. e.* cups formed of the earth *murrha* with variegated ſpots, blue and red,

* Plinii Nat. Hiſt. lib. xxxvii. cap. 2.

on a white ground, which their ſkill in fixing colours by fire would eaſily enable them to inſert into the very ſubſtance of the murrhins. The *murrha* is ſaid to have been a foſſile production, principally found in Carmania, on the weſtern borders of India, and in Parthia, ſo that the Indians were probably potters before they quitted their firſt reſidence in Perſia. At leaſt the occupation of the *potter* repeatedly occurs, as the reader muſt have obſerved, in the extract from the Inſtitutes; and there is a particular claſs, or caſt, formed on the firſt diviſion of the Indians as a nation, denominated CUMBHACARA, literally *the potter*.* We know, alſo, from the report of the Athenian ambaſſadors, who viſited Perſia before the invaſion of Alexander, that υαλινα εκπωματα, or *veſſels made of glaſs* or *porcelain*, were daily uſed in the luxurious court of Suſa;† and, as we hear of no potteries or glaſs-manufactures eſtabliſhed among the Perſians, they probably were indebted for them to their connection with India. When

* Aſiatic Reſearches, on the Hindoo Claſſes, vol. v. p. 56, London, quarto edition.

† Ariſtophanes, Acharn. 1, 2.

the ancients mention glaſs, it is to be feared their preciſe meaning is not always very clearly to be aſcertained; and, in this inſtance, the murrhins of India were moſt likely to have been meant by the Greek words cited above: *υἀλινα*, however, is ſometimes uſed to ſignify *chryſtal*, and chryſtal vaſes were equally the production of the Indian artiſts with the *vaſa murrhina*. It was in Pompey's triumph that this latter ſplendid ſpecies of porcelain was firſt exhibited at Rome, and the ſpecimens thus diſplayed, probably of great magnitude, were, for their high value, afterwards dedicated to Jupiter Capitolinus. But the luxury and extravagance of the Roman nobility did not permit them to continue long without theſe beautiful ornaments to their tables and ſideboards; however, their value decreaſed not in proportion as they grew more common, and they ſeemed ſtill to be conſidered as precious at leaſt as golden cups.

> Surrentina bibis? nec *murrhina picta*, nec aurum
> Sume; dabunt calices hæc tibi vina ſuos.*

The murrhins reſembled alſo Oriental porcelain in bearing hot liquors without breaking;

* Martial, lib. xiii. 110.

for,

for, the ſame author, in another paſſage, tells us,

> Si calidum potas, ardenti *murrha* falerno
> Convenit, et melior fit ſapor inde mero.*

I cannot but conſider the inventive nation of the Indians as the maſters of the Chineſe in this and many other branches of manufacture; firſt, becauſe Sir William Jones, as we have ſeen above, conſiders the latter people as emigrated Indians; and, ſecondly, becauſe, in the above extracts from the Inſtitutes, mention is expreſſly made not only of the potter, but of ſacrificial *vaſes of ſtone*, that is, earthy and ſiliceous ſubſtances formed by fuſion into porcelain; and there is no authentic book of ſimilar antiquity which mentions porcelain as then fabricated in China, though the Chineſe have now ſecured to themſelves, from having diſcovered in that more eaſtern region of Aſia a finer earth, denominated by them KAOLIN, nearly the whole of this lucrative commerce. In fact, there is no mention of porcelain as a manufacture of China in any exiſting author that I recollect earlier than the

* Martial, lib. xiv. 113.

ninth century, when the two Arabian travellers, whoſe relations Renaudot has publiſhed, viſited that country, and declare as follows. "The Chineſe have an excellent kind of earth, with which they make a ware of equal fineneſs with glaſs and equally tranſparent."* At this, if they were in reality Indians, there can be no wonder; but, if they were of Tartar origin, I make no doubt but that they copied, from their more ingenious neighbours, the mode of making porcelain as well as many other mechanic arts. For, notwithſtanding all that M. Bailly and M. D'Ancarville have urged in their behalf, the Tartar hordes ſeem in every age to have been little better than brave barbarians.

The very reſpectable writer cited before, Father Bartolomeo, whoſe book,† I lament, was not publiſhed when I commenced this Diſſertation, is of opinion that the ancient Indians were total ſtrangers to the art of *making glaſs*, and that what they had of this commodity was imported into India by the Greeks

* Ancient Relations, p. 21.

† Voyage to the Eaſt Indies, tranſlated from the German, p. 391.

and

and Romans. He allows, however, the truth of Pliny's aſſertion, that they well knew how to make artificial ſtones, and were particularly celebrated for their juſt imitation of the BERYL.* This conceſſion is very important; becauſe, if they could give the colours requiſite to form the imitations in queſtion to ſiliceous ſubſtances or chryſtal in fuſion, they could not be far from the knowledge of making glaſs itſelf, though they might at the ſame time import, as is affirmed by the author of the Periplus in his enumeration of the articles of traffic carried on in his time between Alexandria and India, certain ſpecies of that more curious ſort of veſſels of glaſs ware which we ſhall conſider preſently, and for which the glaſs-houſes of Dioſpolis were anciently in ſuch high celebrity.† It is far more probable, however, that the firſt great merchants of antiquity, the Phœnicians, who monopolized in ancient periods the whole trade of India, had in thoſe periods taught them the firſt rudiments of an art, univerſally attributed to their in-

* Hiſt. Nat. lib. xxxviii. cap. 5.

† Periplus Mar. Erythr. p. 28, 30.

vention,

vention, — that of making glaſs from the fine ſand that covered their ſhore; and had alſo communicated to them the ſecret of ſtaining it of various colours to imitate precious ſtones; for, that they were thoroughly acquainted with the proceſs is incontrovertibly evident from the great *column of emerald* formed by Phœnician artiſts, and which, according to Herodotus, who ſaw it, adorned the ancient temple of Hercules at Tyre. That column was undoubtedly fabricated of glaſs* ſtained of the colour of that gem, and by night was probably filled with lamps, as it is ſaid, amidſt the darkneſs of the midnight hour, to have illuminated the whole of that auguſt fabric. The learned author of the tranſlation of Herodotus, a work equally valuable to the Engliſh reader for the fidelity of the text, and the various erudition diſplayed in the notes, eſpecially thoſe of a mythological alluſion, is inclined to diſpute this very early knowledge of the Phœnicians in the fabrication of glaſs; but he will candidly own that the voice of claſſical antiquity is at leaſt very loud in favour of the judgement

* Herodotus, lib. ii. cap. 44.

which

which aſſigns it to them. Among thoſe claſſics eminently ranks that diligent collector of their opinions, Pliny, who not only expreſſly affirms what has been previouſly mentioned, that this ancient people firſt made glaſs from the very fine ſand and pebbles on their ſhore, thrown into accidental fuſion with the aſhes of burnt vegetables that lay ſcattered over that ſhore, but, ſpeaking of the manufactures of Sidon, intimates that they alſo knew the art of making *ſpecula*,* glaſs mirrors; and, though they may not be allowed to have applied, in making them, that tin which they ſo abundantly imported from Britain, yet they knew how to procure, in ſome degree, a ſimilar effect, by tinging the poſterior ſurface with ſome opake ſubſtance, which would naturally cauſe images to be reflected from the ſuperior.

The ancient mirrors, indeed, were not generally made of glaſs, but of metallic ſubſtances: from the context, however, it is moſt probable that *ſpecula vitrea* were here intended; and the Sidonians were not the only ancient people who fabricated theſe glaſs

* Plinii Nat. Hiſt. lib. xxxvi. cap. 22.

mirrors,

mirrors, for they appear to have been alſo manufactured, at a very remote period, in the glaſs-houſes of the great Dioſpolis, in Upper Egypt, in which city all the laborious operations of chemiſtry were carried to a high degree of perfection. In teſtimony of this, we have only to recur once more to thoſe ſtupendous exiſting monuments of their ſkill in this reſpect, the mummies, ſome of them covered with GLASS of varied colours; on which ſubject, ſo much in point, let us again hear M. Dutens, who, on this topic at leaſt, has certainly not advanced any thing that will not admit of ſtrict inveſtigation, and even of ocular proof.

"There were alſo in thoſe mummies of Egypt many things beſides, which fall within the verge of chemiſtry; ſuch as their *gilding*,* which is ſo very freſh, as if it were but of fifty years ſtanding; and their *ſtained ſilk*, ſtill vivid in its colours, though after a ſeries of thirty ages. In the Muſeum of London there is a mummy covered all over with fil-

* "The ancients alſo underſtood gilding with beaten and water gold.—Æs inaurari argento vivo legitimum erat. Plin. Hiſt. Nat. lib. xxxiii. cap. 3. Vitruv. lib. vii. cap. 8."

lets

lets of granated glaſs, various in colour, which ſhews that this people underſtood not only the making of glaſs, but could paint it to their liking. It may be remarked here, that the ornaments of glaſs, with which that mummy is bedecked, are tinged with the ſame colours, and ſet off in the ſame taſte, as the dyes in which almoſt all other mummies are painted; ſo that it is probable, that this kind of ornaments, being very expenſive, was reſerved for perſonages of the firſt rank only, whilſt others, who could not afford this, contented themſelves with an imitation of it in painting."*

This exiſting ſpecimen of their ſkill is extremely curious and valuable; but, if thoſe who have recorded the hiſtory of the progreſs in ſcience of the ancient Egyptians can be depended upon, they ſoared to a far greater height of excellence in this branch of chemical exertion; for, they fabricated coloſſal ſtatues of their gods and kings in coloured glaſs; and, according to Theophraſtus, had erected in the temple of Jupiter Hammon an obeliſk compoſed of four emeralds, that is, of glaſs

* Duten's Inquiry, &c. p. 241.

of

of the colour of that gem, not leſs than forty cubits in height, and four in breadth.* Another coloſſal ſtatue of Serapis, the Sun, nine cubits high, and conſiſting of one ſolid emerald, is mentioned by Pliny, from Apion, as in his time preſerved in the labyrinth. Seſoſtris is alſo ſaid to have preſented to the king of the Lydians a ſtatue of Minerva, compoſed of one emerald, four cubits high; and tradition has immortalized the great ſmaragdine, or emerald, table, on which the renowned Triſmegiſtus, having engraved the ſecrets of the Hermetic art, cauſed it to be buried with him.†

Arrian, or whoever was the author of the Periplus, acquaints us, that, in the glaſs-houſes of Thebais, they endeavoured to imitate the *vaſa murrhina* of India; and that they made in abundance theſe falſe murrhins, in which they drove a conſiderable commerce with the Arabian and Roman merchants; but, as Pliny poſitively aſſerts that theſe imitative veſſels were of glaſs, it is evident that the true

* Theophraſtus de Lapid. p. 394.

† Pliny, lib. xxxvii. ſect. 19. Fabricius Bibl. Græc. lib. i. cap. 10, p. 98.

murrhins

murrhins were of a compoſition ſomewhat ſimilar, — *i. e.* of a very fine ſpecies of porcelain almoſt as tranſparent as glaſs; but the Egyptian artiſts, wanting the proper materials of which the latter were made, were obliged to be content with remaining ſucceſsful imitators only. The Egyptians would probably have made as fine porcelain had they poſſeſſed the ſpecies of argillaceous earth neceſſary; but, as I have before remarked, it was principally in the more elegant kinds of highly finiſhed ornamental glaſs ware that they excelled; ſuch were thoſe three cups, of very curious glaſs, named *allaſſontes*, ſent from Egypt by the Emperor Adrian to Rome, and which, *ſicut palumborum colla*, like the NECKS OF PIGEONS, reflected, on whatever ſide they were viewed, a rich variety of colours, in the manner of the precious ſtone called *obſidianum*, ſuppoſed by ſome commentators to be *cat's eye*, and by others the *opal*. The Greeks, of whom the Egyptians were the maſters in chemiſtry, ſoon learned of them the art of making theſe fictitious gems of all poſſible colours, the ruby, the hyacinth, the emerald, and the ſapphire; for, thus Pliny, ſpeaking of the former, obſerves: *fit et tinctura, ex*

*genere*

*genere* obſidiani, *ad eſcaria vaſa; et totum rubrum vitrum, atque non tranſlucens,* PŒMATINON *appellatum. Fit et album, et* MURRHINUM, *aut hyacinthos ſapphiroſque imitatum, et omnibus aliis coloribus.**

It is time for us to return to the Indians, who are celebrated by the ſame writer for their ſkill in fabricating artificial BERYLS; that is to ſay, in making coloured, but not white, glaſs. It is ſcarcely poſſible to conceive, after a ſerious peruſal of the previous extracts from MENU, but that the Indians were as ancient and as excellent chemiſts as the Egyptians; and, ſince all the precious ſtones above enumerated were native to the ſoil of India, as ſhall be ſhewn more at large hereafter, when we come to conſider the antiquity of their engraving in gems, it is equally impoſſible to conceive but that, as they were firſt known, they were earlieſt imitated by the more ingenious race of Indians. The Indian ſciences with their books are indeed buried in ſuch profound obſcurity, that here alſo we can alone argue upon the ground of analogy and conjecture; but the arguments for their having manu-

* Plinii Nat. Hiſt. lib. xxxvi. cap. 26.

factured

factured glaſs, in periods of great antiquity, amount to little leſs than certainty; for, I muſt repeat it, if they could make artificial BERYLS, they wanted neither means, nor genius, nor commercial incitement, to fabricate other ſimilar compoſitions from ſiliceous ſubſtances; and, if they were ſo early *potters*, it is ſcarcely poſſible, but that they could alſo manufacture glaſs veſſels, though not, perhaps, of ſuch ſuperior fineneſs as thoſe of Sidon and Dioſpolis. The truth is, that, in all manufactures of pottery, owing to the intenſeneſs of the fire made uſe of, ſome portion of the matter is neceſſarily vitrified, and the glaſs and pottery manufacture muſt have gone on together from remoteſt antiquity.

It is very probable, alſo, that the Indians underſtood the method of working in Moſaic; for, Philoſtratus tells us, Apollonius ſaw in India a moſt glorious temple of the Sun, the walls of which were of red marble, reſembling fire, interſperſed with ſtreaks of gold, while the floor exhibited to the view an infinite variety of pearls and precious ſtones, artfully diſpoſed in a kind of *chequer-work*, to

imitate the rays of that luminary,* and which reflected back a luſtre that rivalled his genuine beams. Theſe were probably artificial ſtones of the kind under diſcuſſion, and this ſpecies of Moſaic work ſeems to have been not uncommon in the Eaſt; for, we read in Eſther of a beautiful pavement of this variegated kind in the palace of Suſa, when, at the great banquet given by the Babylonian ſovereign Ahaſuerus, all the riches of his treaſury were diſplayed to the view of the people. The paſſage impreſſes the mind with the moſt exalted idea of the magnificence in which thoſe ſovereigns lived, and is highly worthy of inſertion in a work that enters ſo much at large into the ſplendid antiquities of Aſia.

*And, when theſe days were expired, the king made a feaſt unto all the people, that were preſent in Shuſhan the palace, both unto great and ſmall, ſeven days, in the court of the garden of the king's palace;*

*Where were white, green, and blue, hangings, faſtened with cords of fine linen and purple to ſilver rings, and pillars of marble: the beds*

* Vita Apollonii, lib. ii. cap. 11.

*were*

*were of gold and ſilver, upon a pavement of* RED, *and* BLUE, *and* WHITE, *and* BLACK, *marble.*

*And they gave them drink in veſſels of gold, (the veſſels being diverſe one from another,) and royal wine in abundance, according to the ſtate of the king.**

The Egyptians too were no ſtrangers to this kind of elegant work in Moſaic; for, Lucan, deſcribing the luxurious palace of Cleopatra, acquaints us,

——— *totaque effuſus in aulâ*
*Calcabatur* ONYX.

Which can ſcarcely have reference to any thing except the teſſellated pavement, of various coloured ſtones, in which the ONYX abounded.

On the whole, as the tribe of CUMBHACARA, or the *potter*, is enumerated among thoſe earlieſt formed, and as mention is ſo frequently made in the Inſtitutes of *ſacrificial vaſes*, there can be no doubt of very fine porcelain having been anciently made in India; and that glaſs, both white and coloured, could not be unknown to a race ſo

* Eſther, cap. i. v. 5, 6, 7.

far advanced in chemiſtry as were the ancient Indians. Indeed glaſs is expreſſly mentioned in the Amaraſinha, a book compoſed ſixty years before the Chriſtian æra, under the Sanſcreet name of SURYACANDA, that is, ſays M. Bartolomeo, "a bright tranſparent maſs, through which the rays of the ſun can penetrate."* However, they do not ſeem, any more than other ancient nations, to have uſed it for windows; for, according to this author, they employ, for that purpoſe, *mother-of-pearl*, finely wrought and poliſhed, and which is procured in abundance at the pearl-fiſheries in the neighbourhood of Cape Comorin.

## SCULPTURE.

Although the early progreſs of the Indians in *ſculpture* has been already conſidered in various parts of the preceding volumes, yet a retroſpect view of what has been advanced on ſo curious a ſubject, with a few additional ſtrictures, may not be diſpleaſing to the reader, in this ſummary ſketch of their arts and ſci-

* Page 391.

ences.

ences. *Modelling* in *clay* or *plaſter* muſt doubtleſs have long preceded any efforts in this branch of ſcience. To attempts of this humble kind, in pottery and porcelain, ſucceeded coloſſal ſtatues hewn from the ſolid rock, or caſt in moulds from the various ores, as their knowledge of metallurgy increaſed. If a due proportion and ſymmetry are not always ſo accurately preſerved as they ought to be, an excuſe for the artiſt readily preſents itſelf in the very nature of the ſtrange groteſque ſymbolical objects deſignated, exhibiting, in one complex form, various ſpecies, and often different ſexes; figures with numerous heads and arms loaded with emblematical devices, (the vagaries of mythology,) the tuſks of the elephant, and the horns of the ox; ſometimes environed with ſerpents, and at others hung round with ſtrings of death-heads; which bid defiance to all the rules of regular ſcience. Many of theſe mythological figures, however, in Elephanta, the oldeſt depoſitary of idolatrous Indian images, are by no means contemptible in point of expreſſion; and in particular that terrific figure repreſenting the evil principle, which diſplays aloft the emblems of the

ſanguinary worſhip paid to it, and is engraved in the ſixth volume, affords no mean ſpecimen of the progreſs in deſign of the Indian ſculptor at the early date generally aſſigned to that cavern-temple and its ſingular decorations. Refinement in theſe arts, at that remote period, is neceſſarily out of the queſtion; it was not elegance, but magnificence, that ſwayed the mind of the Indian artiſts. Their lofty conceptions of deity they conceived beſt repreſented by gigantic ſtatues and maſſy ſymbols; and, by forming a mere buſt of ſuch ſtupendous dimenſions as the principal figure there exhibits, [thirteen feet in height, the face five feet, and the breadth between the ſhoulders twenty feet,] the artful Brahmin completely effected the only purpoſe he had in view, — that of over-awing the mind of the timid, ignorant, adoring, Indian.

In truth, theſe mythological ſculptures, theſe emblematical repreſentations of avatars and coloſſal deities, with their reſpective attributes and ſymbols, carved in the living rock, in ſubterraneous ſolitudes, the firſt temples, in the infancy of mankind, were in ſome degree neceſſary to ſuſtain and keep alive

alive the ardour of the pious enthuſiaſt. The ſuppoſed preſence of the gods, in theſe myſtical images, diffuſed throughout the place an unſpeakable awe and an inviolable ſanctity; while the choral ſymphonies and ever-blazing fires elevated the enraptured ſoul even to thoſe ſtars which were the proper abode of the ſidereal deities adored by them. On the other hand, the repreſentation of dæmons on thoſe walls, in all the horrid forms, and with all the dreadful ſymbols, which fear or fancy could ſuggeſt, had an immediate tendency to over-awe the guilty mind, to expoſe the deformity of vice, and expreſs the tortures of conſequent remorſe and deſpair; for, in their mythological pictures, as I have elſewhere expreſſed myſelf, with the ſymbolic figures of the mercy and goodneſs of God, were conſtantly blended thoſe of his juſtice and his wrath. As the former were ſculptured with ſmiling aſpects, and were decorated with the enſigns of peace and protection, ſo were the latter portrayed with horrible diſtorted viſages, and arrayed with every dreadful ſymbol that could alarm and terrify the beholder. Theſe figures, converted into dæmons, under the notion of being the avenging miniſters

of omnipotent juſtice, were moſt to the purpoſe of the prieſt. He recited their number, he magnified their enormous power, and he awakened the agonizing terrors of his audience by impreſſing them with ideas of their conſtant and immediate interference in human affairs.

Nor to mankind, in the improved and poliſhed ſtate of ſociety, have theſe mythological ſculptures proved without important uſe or ſublime gratification. Theſe rude, but majeſtic, remains of ancient ſculpture admit us to a cloſe view of remote antiquity. The allegorical deſigns which they exhibit obſcurely unfold to us the hiſtory of the primitive ages; the profound arcana of their religion, the form and decoration of their temples; the dreſſes of the prieſts; and the ſubjects and inſtruments of ſacrifice; they diſplay to the eye of contemplation the firſt rudiments of thought, the firſt efforts of genius, the firſt dawn of the ſciences. On the figured walls and emboſſed roofs we ſee the elements embodied; the paſſions perſonified; the auguſt ſchool, at once, of the deepeſt phyſics and the moſt inſtructive morality! Let us once more, for a moment, deſcend the depths

depths of the ſacred cave, to which a date much ſhort of *four thouſand years* can ſcarcely be aſſigned; let us penetrate its inmoſt receſs; and again contemplate the ſtupendous viſion.

" The principal entrance is from the north. The enormous maſs of ſolid rock above is ſupported by four rows of pillars of good proportion, but of an order in architecture totally different from that of Greece and Rome. Each column ſtands upon a ſquare pedeſtal, and is finely fluted; but, inſtead of being cylindrical, gradually bulges out towards the centre. The capital is alſo fluted, and has the appearance of a cuſhion preſſed flat by the weight of the ſuperincumbent mountain. Over the tops of theſe columns there runs a ſtone ridge cut out of the rock, reſembling a beam, about a foot in thickneſs, richly adorned with carved work. Along the ſides of the cavern are ranged thoſe mighty coloſſal ſtatues before-mentioned, to the number of forty or fifty, each of them twelve or fifteen feet in height; and, although they are as round and prominent as the life, yet none of them are entirely detached from the main rock. Some of theſe figures

figures have on their heads a kind of helmet of a pyramidal form; others wear crowns rich in devices, and ſplendidly decorated with jewels; while others diſplay only large buſhy ringlets of curled or flowing hair. Many of them have four hands, many have ſix, and in thoſe hands they graſp ſceptres and ſhields, — the ſymbols of juſtice and the enſigns of religion, the weapons of war and the trophies of peace. Some of them have aſpects that inſpire the beholder with terror, and, in the words of Linſchoten, are diſtorted into ſuch "horrible and fearfull formes that they make a man's hayre ſtand upright;" others are diſtinguiſhed by a placid ſerenity and benignity of countenance; and others betray evident marks of deep dejection and inward anguiſh. The more conſpicuous figures are all gorgeouſly arrayed after the Indian faſhion, with heavy jewels in their ears, with ſuperb collars of precious ſtones, with belts ſumptuouſly wrought, and with rich bracelets on their arms and wriſts."*

Paſſing by the often-deſcribed buſt with three heads, and the tremendous figure of the

* Indian Antiquities, vol. ii. p. 140.

Indian

Indian Κακοδαιμων above alluded to, let us proceed in queſt of farther proof of the ſkill in ſculpture of the old Indians to the weſt end of this grand pagoda, where is a dark SACELLUM, twenty feet ſquare, totally deſtitute of any external ornament, except the altar in the centre, and eight gigantic figures which guard the four ſeveral doors that lead into it. Theſe figures are ſtationed one on each ſide of every door, and are of the enormous height of thirteen feet and a half; they are all ſculptured in high relief, and appear as if ſtarting from the wall to which they are attached. Their heads are decorated in a manner ſimilar to the other ſtatues: they have rich collars round their necks, and jewels of a vaſt ſize in their ears. Of the ſtriking attitude of one of thoſe ſtatues, which remains moſt entire, Mr. Hunter has recorded the following particulars: that the whole weight of the figure ſeems to reſt upon the right leg, while the knee of the left is ſomewhat bent, the right humerus hangs downward parallel to the body, and the fore-arm is bent in ſuch a manner that the hand is oppoſite to the navel, the palm is turned upwards and ſuſtains a GLOBE, and the fingers

are

are bent backwards in a ſtyle that admirably repreſents, or rather makes the ſpectator *feel*, the weight of the ponderous body they ſupport. He adds a judicious remark, that the people, whoever they are, that carved theſe figures, muſt have made conſiderable progreſs in the art of ſtatuary, ſo accurately to have obſerved, and ſo ſucceſsfully to have expreſſed, as in many inſtances they have, the alteration which the form of the limbs undergoes from muſcular action and external impulſe, as well as the various effects of mental ſenſation upon the human countenance.*

I have ventured to bring theſe paſſages again before the reader's view, for the purpoſe not only of proving the progreſs made by the Indians in SCULPTURE at this moſt early period, which, as Mr. Hunter juſtly obſerves, muſt have been very great; but of corroborating various aſſertions made in the courſe of this Diſſertation concerning their equally rapid advance in other walks of ſcientific attainment. Thus, for inſtance, the *ſword* and the *bell* in the hands of the Indian Ahriman demonſtrate that they were

* Indian Antiquities, vol. ii. p. 259.

even

even then METALLURGISTS; the jewels and pearls, with which the ears, necks, arms, and ankles, of many of the figures are loaded, prove that they had already explored the ſubterraneous regions for gems, and the bed of the ocean for its pearly treaſures, and had accompliſhed the difficult proceſs of piercing precious ſtones; while the ZENNAR, or ſacred cord of three threads, on other figures, evinces that their cotton-manufactures were already commenced. Theſe deductions muſt be allowed to be juſt, and are very important towards determining the antiquity of the arts and ſciences in India; but, at the ſame time, it muſt be owned they carry us back very near to the period of the deluge, and conſequently demonſtrate, I truſt, the propriety of my conſtantly connecting, both in the preſent work and in the Hiſtory, the ante-diluvian arts and ſciences, by the channel of Noah and his family, with thoſe of the earlieſt poſt-diluvian ages. Without that hypotheſis, at once ſo rational and ſo conſonant to the Scripture-hiſtory, which expreſſly mentions Tubal Cain as the firſt metallurgiſt, Cain as the firſt architect, Jubal as the firſt muſician, &c.

difficulties

difficulties inexplicable would have ariſen; and, by aſſerting the pretenſions of the Indians to ſuch remote antiquity, theſe volumes would ultimately have tended to ſupport the hypotheſis of the ſceptic. For this reaſon I eagerly embraced the Septuagint chronology, in the firſt place, becauſe, by giving a greater age to the world, it allows a more extended period for the arts and ſciences to have arrived at maturity; and, ſecondly, becauſe I am of opinion, that the arguments brought by Voſſius and Jackſon unanſwerably prove it to be the genuine chronology of the Hebrews. On this account, ſome zealous advocates for that chronology, as generally received, not ſufficiently attentive to my views in doing this, have thought proper warmly to arraign that part of my book; but I had fully weighed the queſtion, and on conviction adopted it as the ſyſtem moſt reconcileable to reaſon and revelation. On this occaſion, I muſt repeat that it is not for a few centuries more or leſs that we wage war with infidelity, but for the grand Chriſtian code itſelf, which the enormouſly exaggerated chronologies of ſceptical aſtronomers,

aſtronomers, could they eſtabliſh their vagaries, tend utterly to annihilate.

To reſume the conſideration of the ſkill of the old Indian race in ſtatuary, a very uncommon ſhare of original merit (for, they certainly never condeſcended to be *copyiſts*) cannot be denied them. Without any claim to the merit of nice geometrical proportion or Grecian elegance, the figures of men and animals, engraved externally and internally on the pagodas of India, are by no means ſo deſtitute of the general outlines of the ſcience as greatly to offend the eye, however the uncouth mythology, and the joining together of heterogeneous portions of human and brutal forms, may inſult the correct taſte and matured judgement of the European ſpectator. If in elegance they are greatly inferior to Grecian ſculpture, they are at all events much ſuperior to the mis-ſhapen ſtatues of the Egyptian artiſts. Had not the Indian been chained down by the mythology of his country to a certain indiſpenſable routine, both in deſign and execution, from which he dared not deviate, his progreſs towards maturity would have been more rapid; as, in Bartolomeo's judgement,

ment, the modern Indians want neither talents nor taſte in either of thoſe reſpects. The ſtatuary, he informs us, " muſt make the ſtatues of the gods exactly in the way and manner preſcribed by the prieſts; in order, according to their opinion, that the attributes of the deity may be properly expreſſed. Hence it happens that the Indian ſtatues have from four to ſix hands; three, and ſometimes more, heads; and, in general, a very horrid appearance. The architect, however, has full ſcope for his genius, and is by no means ſubjected to the arbitrary preſcriptions of the Brahmins. For this reaſon the Indian architecture exhibits more taſte, and is much more perfect, than their works of ſculpture: but I will not deny that the ſtatuaries alſo make excellent pieces when they are allowed to follow the impulſe of their own genius; as is proved by the many baſs-reliefs, crucifixes, madonnas, vaſes, and other articles of ivory, which are here and there executed by the Indian artiſts." P. 387.

The ſame apology is urged by this very ſenſible writer for the defects, of a ſimilar kind, that appear in their paintings. In either

either caſe their genius is equally cramped, and their progreſs in the fine arts alike retarded.

" In regard to the painting of the Indians, the caſe is the ſame as with their ſculpture. This much is certain, that no one can follow the dictates of his own genius, and paint the gods as he pleaſes. Every innovation of this kind is conſidered as an act of impiety. The Brahmin preſcribes the figure and form which a ſtatue muſt have: under theſe, and no other, it muſt be painted; and the leaſt part of his care is whether theſe be conſiſtent or not with the rules of art and of good taſte. I have already obſerved, on different occaſions, that the Indian mythology gives to each deity a certain ſurname and appellation, the object of which is to expreſs their different qualities; and a painter, when he ſketches out a god, muſt repreſent theſe qualities alſo. Thus, for example, Seeva is called the god who bears the trident; and for that reaſon he muſt be always repreſented with a trident in his hand. He is called, likewiſe, the Conqueror of Death; and, on that account, muſt be delineated with a number

of ſabres, daggers, and ſculls, lying around him, and with a man under his feet. He exhibits a horrid countenance; his mouth is diſtorted; his eyes ſeem to dart forth fire; and he has around his neck a cord on which a great number of ſculls are ſtrung. The caſe is the ſame with all the other deities, which muſt always be repreſented in ſuch a manner as is agreeable to their character and attributes. From this it appears, that the painting of the Indians, like their ſculpture, is in the cloſeſt connection with their theogony; and, as the Brahmins alone have the right of explaining it, they aſſume the excluſive privilege of judging in regard to works of painting and ſtatuary. As the painters are acquainted neither with the Sanſcreet language nor their mythology, it has been impoſed on them as a duty to conſult the Brahmins; and whoever tranſgreſſes this law is puniſhed by expulſion from his caſt. This is the true reaſon why painting and ſtatuary have made ſo little progreſs in India." P. 388.

Thus, according to this author, has the deſpotiſm of ſuperſtition oppoſed an everlaſting barrier to the farther progreſs of the noble

noble arts of ſculpture and painting in India, and prevented the free operation of talents and exertion in a nation naturally the moſt ingenious and lively of all the Aſiatics; a nation too, it may be added, the individuals of which exhibit in their own perſons, when in the full vigour of youth and health, the moſt perfect models of elegance and ſymmetry that ever employed the chiſſel or animated the pencil. The reflecting mind turns with horror from a proſpect ſo ſhaded with invincible barbariſm; and, with increaſed pleaſure, contemplates thoſe diſtant weſtern regions which, though leſs beautiful and abundant, are yet bleſſed with the light of liberty, and exult in the enjoyment of a nobler theology!

Since the appearance of the third volume of this work, which contained my Diſſertation on the

ARCHITECTURE

of the primitive race of Indians, the ingenious Mr. Daniell has publiſhed his Deſigns of Indian Buildings, and, the more attentively any perſon conſiders them, the more clearly he will perceive that the Indian architecture

is not, as has been idly argued, copied from either Egyptian or Perſian models; but that it is genuine *Hindoo*, and, in general, the reſult of their own mythological conceptions. This gentleman, who, with indefatigable zeal in ſearch of the architectural antiquities of India, has aſcended the ſnowy precipices of the Sewalic mountains, and dared the tropical fervours that deſcend direct on the vaſt temple at Ramankoil on the moſt ſouthern point of the Peninſula, has preſented the public with a greater variety of ſpecimens, in this line, than any preceding artiſt, and they will nearly all ſerve as a forcible comment upon what has been previouſly urged, in the Diſſertation before alluded to, in reſpect to the origin and progreſs of Oriental architecture; ſince, in theſe retroſpective ſurveys, the *pyramid*, the *cone*, and the *oval*, perpetually recur in perfect uniſon with their mythological ſuperſtitions reſpecting the beam of the ſun, the cave of Surya, or Mithra, the chaotic egg, &c. &c. There is no occaſion for our retracing, in this place, ground already ſo amply trod over; but I cannot omit acknowledging, in this place, either my own

numerous

numerous obligations to this diſtinguiſhed artiſt, or expreſſing my ſentiments how greatly Indian literature is indebted to his illuſtrative pencil.

In fact, the higheſt idea with which the moſt eſteemed printed accounts had impreſſed my mind, added to the correct verbal relations of intelligent travellers, who have, within a few late years, viſited the excavated temples of India, and the pagodas that every where erect their majeſtic ſummits in the provinces ſubject to, or connected with, the Britiſh government, fell very far ſhort, indeed, of what the magnificent ſketches of Mr. Daniell muſt ſuggeſt to every man who attentively ſurveys and conſiders them. In general, we have been accuſtomed to read the Mahommedan accounts of thoſe temples, which the deſolating fury of their own barbariſm has defaced in the fertile and populous diſtricts conquered by them, and the ſacred edifices of Benares, of Sumnaut, and of Seringham, excite in us the moſt profound aſtoniſhment. On theſe we gaze in the hiſtoric page with awe-ſtruck wonder, and regard their recorded dimenſions as almoſt incredible. It is not, however, in re-

gions ſubjugated to the Mahommedan yoke, or under the juriſdiction of any foreign power, that we ought to expect to diſcover the moſt auguſt remains of ſacred architecture in India; the yet unexplored regions of the extreme ſouthern Peninſula, to which the Iſlamite conquerors *did not* penetrate, buried in immenſe foreſts or emboſomed in mountains of granite, contain edifices of ſurpriſing magnitude executed in the boldeſt ſtyle of Indian architecture; while many of the ſculptures that cover them, from the ſummit to the baſe, are wrought with uncommon ſpirit and elegance. Among animals thus ſculptured, the bull, the lion, the elephant, and the Cobra ſerpent, continually occur, being the principal ſymbols in their mythology; the three laſt, as objects which they are accuſtomed frequently to ſurvey, are generally well repreſented; but, it muſt be owned, the lion, being, in modern times, at leaſt, a ſtranger in this region of Aſia, is, in general, very inaccurately deſigned. In truth, whereſoever this ſymbolical figure, rudely delineated as it uniformly is, occurs, we may, in general, reſt aſſured, from this very circumſtance, that the ſculpture is of high antiquity.

The

The pagoda of Ramiſſeram, before alluded to, on the iſland of Ramankoil, dedicated to the great God Mahadeva, deſerves particularly to be noticed as one of thoſe that awe the mind by the grandeur of its elevation; and this ſtupendous, but ſecluded, temple may probably lay claim to a date in antiquity ſuperior to moſt others in India; even the diſtant date of Rama's expedition, into theſe regions, to recover his beloved SITA from the hundred fangs of the gigantic RAVAN, king of Ceylone. It ſtands cloſe to the ſhore, and has felt the ſhock of the depredating wave, which has, for immemorial ages, been encroaching upon it. Amidſt the inacceſſible woods, alſo, that clothe the deſcent of the Gauts, aſtoniſhing remains of ancient buildings are to be found, conſiſting of very lofty columns of excellent proportion; and erections, to ſome of which the romantic artiſts of India have given the moſt groteſque forms imagination can conceive. Among Mr. Daniell's ſpecimens are alſo immenſe pyramidal maſſes of ſolid ſtone formed like thoſe pyramids above Giza, where the bold projecting rock has received that figure from the inceſſant labour of the chiſſel. Theſe, like the excavations,

that line the ſhore of the Nile, exhibit another ſtriking inſtance of ſimilitude in the architecture of the two nations; while the Canis Anubis and the Vara avatar, or Veeſhnu with the boar's head, ſhew their parallel conceptions in ſculptured imagery. For this aſtoniſhing diſplay of ſo many of the prodigies of ancient India, accompliſhed at great perſonal riſk and hazard, every lover of Indian ſcience will feel the warmeſt gratitude to Mr. Daniell; accompanied with a ſincere wiſh that the laudable example which he has ſet may be followed by other profeſſional gentlemen in India, where a vaſt field for exertion is ſtill open, and the reward will, doubtleſs, be proportioned to the labour.

One reflection naturally and forcibly intrudes itſelf on the mind while conſidering theſe amazing fabrics, and that is, the impoſſibility of their having been erected except in thoſe remote periods when the great Indian empire was yet unbroken by the incurſion of foreigners; when one ſupreme ſovereign MAHA-RAJAH ſwayed the righteous ſceptre of this happy country, by noble rewards encouraged genius, patronized the riſing arts, and, with a powerful hand, protected the

efforts

efforts of the perſevering architect. At the period of Alexander's invaſion we have ſeen that the Indians were no longer firmly united under one puiſſant ſovereign, no longer fought under one victorious banner; the diviſions among the rajahs had long commenced, and their contempt, or, at leaſt, neglect, of the ſupreme head of their order, had encouraged the warlike barbarians, of every neighbouring country, to pour their armies into that debilitated country and among that divided people. To ſuppoſe undertakings, thus vaſt in deſign and arduous of execution, could poſſibly be finiſhed, or even projected, amidſt the turbulence and diſtraction of war, would argue abſurdity in the extreme. They are conſequently to be contemplated as equally auguſt and deciſive monuments of the grandeur of the ancient Indian empire when flouriſhing, under its native dynaſties of princes, in meridian ſplendour.

## ENGRAVING ON GEMS AND SEALS.

We are now, in the laſt place, to enter upon a ſubject equally curious and abſtruſe; an art, the high antiquity of which, at leaſt

leaſt in India, has been very much diſputed, though no fact can be more clearly aſcertained than its having early flouriſhed in that region of Aſia. Under a former head we have ſeen how early the Indians had attained the arts of deſign, ſculpture, and metallurgy; in what remote periods they carved on wood and ſtone the images and avatars of the gods, and the animals, and objects deemed ſacred by them, the gooſe of Brahma, the bull of Seeva, the garuri, or eagle, of Veeſhnu, the elephant-head of Ganeſa, the ſerpent, the lotos, and other ſymbols with which all the caverns abound. We have heard Mr. Halhed's judgement "with reſpect to the ancient coins of Nepaul and Caſhmere, and the ſeals of Bootan and Thibet,"* impreſſed or engraved with the oldeſt Sanſcreet characters and mythology. In the Inſtitutes alſo, regulating our deciſion by the aſcertained "age of that book, we have ſeen how very early they had learned the difficult proceſs of enchaſing in gold, and of piercing fine gems, diamonds, and rubies;"† but we perhaps have not taken

* See page 583 preceding. † See page 685 preceding.

ſufficient

ſufficient notice of the Sanſcreet alphabetical writing conſpicuouſly cut in the Elephanta cavern, and on the breaſt of the principal figure in the grand triple buſt; for that is, in fact, ENGRAVING, and exhibits, at once, a ſurpriſing proof of the antiquity of the art and of the alphabet.

The hieroglyphics, engraved on the granite of Egypt, are the only ancient ſpecimens of this art that can at all vie in antiquity with thoſe of India; at that period, to have poſſeſſed inſtruments proper to cut them on that granite ſo deeply and durably, argues, in the Egyptians, no ſmall advance in chemical ſcience; and, in truth, as few of the inferior claſſes of precious ſtones are of a much harder ſubſtance than Egyptian granite, their being able to operate upon it may well be deemed to imply ſuch an acquaintance with the uſe of thoſe important machines in this ſcience, the *wheel* and the *drill*, as would enable them ſo engrave on the more valuable gems. There is no occaſion, however, on this ſubject, to have recourſe to *conjecture*; the evidence of Scripture, in favour of Egyptian genius, is clear and expreſs; for Pharoah, in exalting Joſeph to the elevated rank which

which he enjoyed in his court, is ſaid to have given him his *ring* or *ſignet*,* which neceſſarily implies an engraving. This event took place in the 18th century before Chriſt, and, much about the ſame period, Judah is ſaid to have given his *ſignet* and his *ring* in pledge to Tamar.† Afterwards we find the Jewiſh artiſts engraving, on the ſubſtance of the hardeſt and moſt valuable ſtones, the names and ſymbols of the twelve tribes of Iſrael, intended to adorn the ephod and breaſt-plate of the Jewiſh high-prieſt; the aſſortment of thoſe ſtones was equally ſuperb and beautiful, for Moſes is thus commanded.

*And thou ſhalt ſet it in ſettings of ſtones, even four rows of ſtones: the firſt row ſhall be a ſardius, a topaz, and a carbuncle; this ſhall be the firſt row.*

*And the ſecond row ſhall be an emerald, a ſapphire, and a diamond.*

*And the third row, a ligure, an agate, and an amethyſt.*

*And the fourth row, a beryl, and an onyx, and a jaſper: they ſhall be ſet in gold in their encloſings.*‡

* Geneſis, xli. 42. † Geneſis, xxxviii. 18.

‡ Exodus, xxviii. 17, 18, 19, 20.

But,

But, what is more important to our purpoſe, Moſes is alſo commanded to *take two onyx-ſtones*; *and* GRAVE ON THEM THE NAMES *of the children of Iſrael:*

*Six of their names on one ſtone, and the other ſix names of the reſt on the other ſtone; according to their birth.*

*With the* WORK OF AN ENGRAVER IN STONE, LIKE THE ENGRAVINGS OF A SIGNET; *ſhalt thou engrave the two ſtones with the names of the children of Iſrael: thou ſhalt make them to be ſet in ouches of gold.**

Thus much was proper to be ſaid in juſtice to the claims of Egypt to very high and ancient proficiency in the lapidary's and engraver's art; but the claims of India aſcend far higher; and the learned naturaliſt, Mr. Raſpe, has laboured with very great ſucceſs to eſtabliſh them. He has very judiciouſly obſerved that India, beſides the ingenuity and mechanic turn of her ſons, has *natural claims* to the invention of this art which Egypt never poſſeſſed. By natural claims, he means to ſay, that Nature has abundantly done that for India which ſhe never did for Egypt; and,

* Exodus, xxviii. 9, 10, 11.

" from

" from times immemorial, has produced from the inexhauſted mines of her peninſula and iſlands, her quarries, and rivers, all the very beſt ſorts of precious, fine, and hard, ſtones which lapidaries and engravers work upon; together with every ſubſtance and material which ſharpen their tools and conquer their otherwiſe invincible hardneſs; — the real Oriental diamond, at once the object and tool of the lapidary and engraver, the ruby-ſapphire, emerald, topaz, chryſolite, the ſardonyx, chalcedon, onyx, cornelian, jaſper, — as alſo a particular ſort of diamond-ſpar which cuts diamonds incomparably better than the beſt emery."* Egypt, he adds, had only jaſpers, porphyries, and ſome other hard ſiliceous ſtones, of its own production; its famous emerald mines, in the Thebaic deſert, are either loſt or exhauſted; or, according to his own and Mr. Dutens' opinion, never produced the *real emerald*; and he affirms they never had the real diamond, nor even the diamond-ſpar, without which the engraver could not operate.

* Raſpe's Introduction to Taſſie's engraved Gems, vol. i. p. 14.

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This ſtatement, from ſo high an authority as Mr. Raſpe, is very forcible, and I think the arguments uſed are deciſive, eſpecially when the ſpecimens of ancient Indian engraving on gems, which are exhibited in Mr. Taſſie's valuable collection, are at the ſame time attentively conſidered. The firſt of theſe is a beautiful EMERALD belonging to Mr. Wilkins, and bearing the Indian SING, or lion, with a Sanſcreet inſcription which marks it for an antique, though it is impoſſible to ſay of what date. He ſpeaks of the ſtyle of the engraving as bold and impreſſive, and equal to the beſt works of the old Egyptian ſchool. The ſecond is of LAPIS LAZULI, in the poſſeſſion of Mr. Townley, repreſenting a man and woman ſitting on a kind of throne, and habited in the manner and ſtyle of the ancient bas-reliefs diſcovered at Salſette and Elephanta. A third is on SULPHUR; and a fourth of ORIENTAL GARNET exhibiting figures dreſſed nearly ſimilar. He has alſo publiſhed ſome zodiac figures of preſumed Indian fabrication; but they are very doubtful.

Mr. Guiſe, late ſurgeon of the hoſpital at Surat, has alſo, with indefatigable zeal, collected, and recently imported into his native country,

country, ſome very curious ſpecimens of engraved ſeals and rings, undoubtedly Hindoo from the ſymbols and characters which they exhibit. One of them, the lion, or SING, on a cornelian, rudely enough deſigned, but deeply cut in the ſtone, with a lotos riſing from his back; another, on lapis lazuli, of a peacock, with its tail expanded, the mythologic bird on which Carticeya rides, the Indian Mars, who leads along the radiant hoſt of heaven, deſignated by its ſpangled plumage; and ſeveral like thoſe of Mr. Townley, habited and throned after the manner of the Elephanta figures, are deſerving of very minute attention from the antiquary. They were dug out of the earth in the neighbourhood of Surat, and, doubtleſs, many more that earth conceals, which time and future reſearch, ſimilar to the laudable and zealous inquiry of Mr. Guiſe, will not fail to recover from its obſcuring boſom.

M. Bartolomeo alſo entirely agrees with the above accounts of the ſkill of the old Indians in engraving ſeals and rings, and mentions two or three very valuable ſpecimens which he had ſeen in India.

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" The Indians," he obſerves, " are accuſtomed to examine the water of diamonds always at night by the light of a lamp. In Europe, diamonds are ſeparated by ſawing them; but the Indians ſplit them, or cut them down to the proper ſize, — a labour in which they are much more expert than the Europeans. Some years ago, the Great Mogul had a diamond which weighed 279¼ carats. It was valued at two millions five hundred thouſand rix-dollars. This diamond, therefore, exceeds in value any hitherto known; for the large diamond of the grand duke of Tuſcany weighs only 139, the Sanci 106, and the famous Pitt diamond 136 carats three grains.

" The artiſts of Ceylon prepare rings and heads for canes, which contain a complete aſſortment of all the precious ſtones found in that iſland. Theſe aſſemblages are called *Jargons de Ceilan*, and are ſo named becauſe they conſiſt of a collection of gems which reflect various colours, ſuch as the red ruby, the ſky-blue ſapphire, the golden yellow topaz, called by the ancients chryſolite, the green emerald, which I found myſelf in Ceylon, though ſome aſſert that it is not a production of that

iſland;* alſo the amethyſt, beryl, opal, and garnet. All theſe ſtones may be procured at Colombo in the iſland of Ceylon, at Cochin and Calicut in Malabar, and at Madras on the coaſt of Coromandel.

" The Oriental diamonds are octagonal and ſharp-pointed. This form, their colour, water, and luſtre, with the livelineſs of their irradiation, are the eſſential characteriſtics by which they may be diſtinguiſhed from the Braſilian diamonds. The different kinds of agates, cornelians, chalcedonies, ſwallow-ſtones, opals, onyxes, and cats eyes, which, according to the ſyſtem of Wallerius, belong to the *ſilex genus*, are not much eſteemed on the coaſt of Malabar, though ſome of them are brought thither from Arabia, Perſia, and the northern part of India.

" On a ſeal ring of the king of Travancor, which conſiſts of a very hard and va-

* " Dutens, in his book *Des Pierres précieuſes et des Pierres fines*, p. 38, ſays, ſpeaking of the emerald, that it is excluſively found in America, near *Manta*, in Peru, or the valley of *Tunka*, in the mountains of New Granada and Popayan, and was not known to the ancients. The author of this voyage aſſerts, that he found emeralds in Ceylon, and I myſelf have obtained ſome of them from that iſland." — FORSTER.

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luable ſtone, the following words are inſcribed: *Shri Padmanàbhen.* This is one of the ſacred names given to *Veeſhnu*, and contains an alluſion to the birth of that deity. *Shri* ſignifies ſacred, *Padma* denotes the *nymphæa*, and *Nabhen* one who ſits in the interior part of this flower. The reader will recollect, from what has been before ſaid, that the *nymphæa* is a ſymbol of water, and of every thing created from it. The above words ſerve as a convincing proof that the Indians are certainly acquainted with the art of cutting upon ſtone. A like ring was in the poſſeſſion of the king of Ceylon, *Vimala Dherma Suryada*, who embraced the Chriſtian religion, and at baptiſm got the name of Don John of Auſtria. On this ring the god *Budha* was repreſented under the human form." P. 392 to 395.

The Ayeen Akbery has a chapter on the Indian mode of ſetting in gold the infinite variety of precious ſtones with which their country abounds, and on their curious gold filigree work, in which they are there ſaid to be "exquiſite artiſts;"* as well as to charge

* Ayeen Akbery, vol. iii. p. 264.

a very high price for their operations in this branch of the profeſſion. In the preceding Diſſertation, (at page 551 of this volume,) the reader will find a conſiderable extract from that chapter; and Mr. Bartolomeo, in this inſtance, as well as the former, bears deciſive teſtimony to their ſcientific ſkill. Indeed, when it is conſidered that, in India, the ſon never deviates from the occupation which his father purſued, through a long ſucceſſion of generations, there is no wonder that the inhabitants ſhould carry the mechanical arts to the utmoſt degree of attainable perfection, by a race equally ignorant and diſdainful of European attainments.

To conclude; in whatever light we contemplate this wonderful people, whether as artiſts and mechanics, or as ſcholars and philoſophers, we are loſt in mingled admiration and aſtoniſhment; and, while we lament many of their local prejudices and blind ſuperſtitions, we cannot avoid feeling a juſt indignation againſt thoſe ſucceſſive oppreſſors that, in every age, have devaſtated their beautiful country, and finally ſubverted their ancient and happy government.

# A DISSERTATION

ON THE

## ANCIENT GOVERNMENT,

AND

## *JURISPRUDENCE*

OF

# INDIA.

( A )

# (DISSERTATION, &c.)

## CHAPTER I.

*Ancient claſſical Writers very defective in Information, reſpecting the* INTERNAL POLICY *of the Indians.— Accounted for in the Reluctance of the Indians to admit Viſits from Foreigners, and in the Injunction of Menu to themſelves not to paſs the* ATTOCK. *— Their Relations, however, not wholly to be rejected. — The Government* MONARCHICAL, *but not deſpotic, and founded on the Principles of the* PATRIARCHAL. *— The unlimited Power of the Brahmins, immediately derived from a divine Source, in the Control of the regal Authority, and in the arbitrary Interpretation of the Laws, rendered it a Kind of* THEOCRACY. *— Hereditary Counſellors of the Crown, in Peace and War; all*

*the higher Functions of effective Government, though nominally and by Law intruſted to the* KHETTRI, *or* RAJAH, *Tribe, ultimately depended on themſelves. — Wiſdom of the original Diviſion of the Hindoos into* FOUR CASTS. *— Their* DUTIES, RIGHTS, *and* IMMUNITIES, *reſpectively conſidered. — The Police eſtabliſhed throughout the Indian Empire extremely vigilant and rigid. — The Duties of its Officers. — That Police ſanctioned by a* CODE *which held out* REWARDS *as flattering as the* PUNISHMENTS *it denounced were terrible and ſanguinary.*

ON the ſubject of the original form of government eſtabliſhed in India, little ſolid information can be expected from the *claſſic* page of antiquity, becauſe a perfect knowledge of the mode in which the government of a country is conducted neceſſarily implies an intimate acquaintance with its hiſtory. But, concerning that hiſtory, through the whole volume of antiquity, there are ſcattered only the fainteſt glimmerings of intelligence; and this univerſal and continued ignorance of the ancients, in regard to the domeſtic hiſtory of India, is eaſily to be accounted for

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in the peculiar manners of this ſecluded people, who ſeem neither to have been anxious to viſit other nations nor to receive viſits from them.

In truth, forbidden, under the ſevereſt penalties the legiſlature could inflict, to wander beyond the limits of the country which gave him birth; attached to that country as well by its fertility and beauty as by the neceſſity which there exiſted of his daily performing a multitude of ſacred rites and ceremonious ablutions preſcribed by his religion, and poſſibly ordained for that very purpoſe by the wiſe policy of Menu; fixed by the decree of the ſame legiſlator to a rank and claſs among his fellow-creatures, from which thoſe immutable decrees allowed no poſſible deviation; the ancient Indian could poſſeſs little curioſity to be gratified in regard to foreign kingdoms, of whoſe exiſtence, indeed, in any extent or number, his ſecluded ſituation would naturally render him in a great degree ignorant. He profeſſed alſo a religion ſo directly oppoſite, in its leading principles, to thoſe of that furious Mahommedan ſuperſtition which afterwards deluged with blood his unhappy country, that it neither ſought nor admitted of

proſelytes; and, while he conſcientiouſly obeyed the mandates of a ſyſtem of juriſprudence, which prohibited any immediate intercourſe with the individuals of all the various tribes, except his own, that inhabited his native region, he could not fail of ſcrupulouſly abſtaining from the defilement inevitably conſequent on an intercourſe, ſtill more ſtrictly interdicted, with foreigners. The ATTOCK, the moſt weſtern river of the Panjab, the very name of which implies *forbidden*, was appointed by Menu to be the eternal barrier between them and alien nations, and to paſs it was to incur at once the chaſtiſement of man and the curſe of God.

On the other hand, deterred by their natural reluctance to admit ſtrangers within their cities, few travellers in ancient times penetrated far into India, and fewer ſtill into the myſtic theology and abſtruſe lore of the Brahmins. The viſits to that country of Zaratuſht and Pythagoras, for the noble purpoſe of inveſtigating the principles of their philoſophy, are among the few recorded in hiſtory. In reſpect to their commerce with the Egyptians and Arabians, that branch of it was carried on principally along the coaſts of

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the Peninſula; and Lahore and Cabul ſeem to have been the utmoſt limits of the migration of thoſe merchants of Upper India, who traded to Perſia and Tartary. Hence it aroſe that ſuch aſtoniſhing fables were circulated in the ancient world concerning this little explored country, where every thing vaſt and prodigious was ſuppoſed to generate and abound; of all which, the credulous Pliny has been the diligent collector and the too faithful narrator.

The Indian ſovereigns alſo, contemplated as they were by their ſubjects, as the vicegerents of God on earth, with a reverential awe little ſhort of idolatry, poſſeſſing treaſures beyond calculation, and power without limit, in their hereditary domain, felt no ſting of avarice, no ardour of ambition, to goad *them* to the conqueſt of ſurrounding nations whom they conſidered as *Mileeches*, infidels, outcaſts of God, and occupying a ſtation in the ſcale of humanity far inferior to themſelves and the favoured tribe of the great Brahma. Over ſuch vaſſals, they would have thought it inglorious to have reigned; happy would it have been for the Hindoos, in after-ages, had the Perſian and Tartar ſovereigns, their neigh-

bours on the weſt and north, been of the ſame opinion with themſelves!

Not abſolutely relying on what claſſical writers have written concerning India, yet, in the courſe of our retroſpect, not wholly regardleſs of their exaggerated narrations, let us conſult the more accurate accounts which Britiſh diligence and zeal, in India, have recently procured for us of that country in its earlieſt periods, either from books or living authorities of the higheſt rank; let us inquire what actually *was* that government ſo celebrated for its wiſdom and equity, and in what manner it was conducted to render it at once ſo laſting and ſo reſpectable.

It certainly was, in the ſtricteſt ſenſe, *monarchical*, but with very juſt and ſevere checks to guard againſt the poſſible abuſe of the powers intruſted to the ruling ſovereign. The Indian monarchy, as originally eſtabliſhed, at the ſame time exhibits to us in a more marked manner than moſt other countries of Aſia glaring veſtiges of the original *patriarchal* mode of government, founded on the model of the *paternal*, in which the chief of each family exerciſed the ſovereign juriſdiction over the individuals of it, even to the infliction

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of death, when merited; continuing to flouriſh unviolated for a long ſucceſſion of ages. With the regal, in him were combined the ſacerdotal dignity, and a kind of prophetic ſanctity of character, ſuppoſed to have deſcended to him from that venerable perſonage who was the grand fountain of all poſt-diluvian honours; the KING, PRIEST, and PROPHET, of the regenerated world! A band of holy Brahmins, who, like the Magi of Perſia, were the hereditary counſellors of the Indian crown, conſtantly attended in the palace, and around the ſacred perſon of the prince, to give him their advice in the moſt important concerns of his empire, to inculcate upon him the duty of a juſt and wiſe ſovereign, at ſtated periods to chaunt the ſolemn hymns of devotion, to aſſiſt at the frequently returning rites of ſacrifice, and explain the omens of the blazing altar.

Though the functions of government, by the laws of Menu, devolved on the Khettri or Rajah tribe; yet it is certain, that, in every age of the Indian empire, aſpiring Brahmins have uſurped and ſwayed the imperial ſceptre. A whole nation of Brahmins was found by Alexander in the weſtern diſtricts of India, on whom,

whom, for their obſtinate oppoſition, that conqueror exerciſed the greateſt ſeverity, and even crucified their king. But, in fact, there was little neceſſity for the Brahmin to graſp at empire: he ruled both the empire and the monarch: he was greater out of the purple than in it. Without the immediate ſanction of that tribe, in no event of national conſequence did the ſovereign dare to embark, either in the ſeaſon of profound peace, or amidſt the turbulence of the embattled field. He was inveſted with equal power in the palace and in the camp. He elevated alternately the olive of peace, or wielded the thunderbolt of war. Strabo poſitively aſſerts,* and his aſſertion is confirmed by the reſults of modern inquiry, that the code of Brahmin law was not originally *committed to writing*; in fact, the very name of that code, which is MENUMSRITI, or *inſtitutes remembered from Menu*, proves this repreſentation to be juſt. Till the age of Vyaſa they were depoſited ſolely in the memory of the Brahmins; and to them the prince applied in all matters of difficulty. On occaſions of extreme natio-

* Strabonis Geograph. p. 716.

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nal urgency he viſited them in the dead of the night, and their anſwers were given in all that gloomy pomp and profound ſolemnity attendant on the midnight hour. By an overſtrained conception of the high ſanctity of the prieſtly character, artfully encouraged for political purpoſes by the prieſt himſelf, and certainly not juſtified by any precept given by Noah to his poſterity, the Brahmin ſtood in the place of the Deity to the infatuated ſons of Indian ſuperſtition; the will of heaven was thought to be uttered from his lips, and his deciſion was reverenced as the irrevocable fiat of deſtiny. Thus, boaſting the poſitive interpoſition of the Deity in the fabrication of its ſingular inſtitutions, guarded from infraction by the terror of exciting the divine wrath, and directed principally by the ſacred tribe, the Indian government as originally formed may be juſtly conſidered in the light of a THEOCRACY; a theocracy the more terrible, becauſe the name of God, by this perverſion, was made uſe of to ſanction and ſupport the moſt dreadful ſpecies of deſpotiſm; a deſpotiſm, which, not content with ſubjugating the body, tyrannized over the proſtrate faculties of the enſlaved mind.

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We are informed by Strabo, that the great body of the Indian nation was divided into *ſeven* diſtinct claſſes, but we know, from more authentic ſources, that this diviſion was only four-fold, that is to ſay, into the claſſes ſacerdotal and regal; the tribe agricultural and mercantile; and that of artificers, mechanics, and ſervants. Theſe, however, are again ſubdivided into an infinite variety of inferior caſts, and in theſe, by the arbitrary mandate of their great legiſlator, they are bound to remain without hope of removal or poſſibility of exaltation. The apparent impolicy of this diviſion has been often deſcanted upon, and juſtly anathematized as a barbarous attempt to chain down the powers of the human ſoul, to check the ardour of emulation, and damp the fire of genius. On that ground, it certainly deſerves the ſevereſt reprobation; yet, by this arrangement, it ſhould be remembered, the happineſs and ſecurity of a vaſt empire was preſerved inviolate during a long ſeries of ages under their early ſovereigns; by curbing the fiery ſpirits of ambitious individuals, inteſtine feuds were in a great meaſure prevented, the wants of an immenſe population were amply provided for by the induſtry of the labouring claſſes,

claſſes, and the ſeveral branches of trade and manufacture were carried to the utmoſt degree of attainable perfection. Though the ſtern ferocity of Mahommedan deſpotiſm hath inſulted their religion and overturned their government, yet they have not been able to rend from them the ſuperior palm of excellence to which the curious productions of the Indian loom are ſo highly entitled; and the exquiſite work in gold and jewellery, that paſſes through the pliant fingers of the Indian artiſt, remains ſtill unrivalled in any commercial region of the earth.

The wide diffuſion of the Sanſcreet ſciences, language, and mythology, over the whole eaſtern quarter of Aſia, appears fully to juſtify the Brahmin aſſertions that the empire, in very remote periods, extended from the mouth of the Indus, weſt, to the Sea of China, eaſt; and from the Thibetian mountains, north, to Cape Comorin in the ſouth. Theſe are the vaſt lines of demarcation which Sir William Jones, from the Brahmin records, ſometimes aſſigns to the ancient empire of India; and, if Mr. Halhed's aſſertion be correct, "that he found the Sanſcreet characters, and emblems alluſive to the Sanſcreet mythology, ſo univerſally

fally engraved on the coins of Aſſam, Nepaul, and Caſhmere, as well as on thoſe of Bootan and Thibet,"* their claims to that wide domain ſeem to be indubitably eſtabliſhed; and it ſhould not be forgotten that the very ſame books record the migration, near four thouſand years ago, of the heretic Chineſe from the boſom of the mother-country, towards the regions lying nearer the riſing ſun.†

This mighty empire was governed, according to their own annals, by one ſupreme monarch, the Maha Rajah, or Great Rajah, to whoſe ſovereign control through its whole extent a numerous claſs of ſubordinate rajahs was obedient, and wiſely to govern ſuch an immenſe territory, it will readily be granted, required the full exertion of all the ſacerdotal, regal, and prophetic functions with which this ſuperſtitious people have inveſted their firſt venerated ſovereigns, after the flood of Satyaurata Menu. Theſe princes, therefore, formed a chain of feudatories, governing vaſt kingdoms, governed, in their reſpective diſtricts, by the ſame laws that bound the ſovereign,

* Halhed's Preface to his Bengal Grammar, p. 3.

† Sir Wm Jones's Eſſay on the Chineſe Nation.

and

and equally reſtrained by the preſence and power of the Brahmins from abuſing the office of chief magiſtrate delegated to them by the ſupreme Brahma and the ſacred tribe, who, in the order of creation, ſprang from his head, like Minerva from the head of Jove.

Nothing could have prevented the ancient Indian kings, exalted and revered as they were by their ſubjects, from becoming deſpotic tyrants, but this ſalutary reſtraint upon their power, added to the powerful ARISTOCRACY which the inferior, but valiant, nobility of their own tribe compoſed. The Brahmin might be faithleſs to the truſt repoſed in him by his god; but the inferior rajah diſdained illegal and diſhonourable ſubmiſſion: he well knew, and, at the hazard of being and fortune, would aſſert, the rights of his caſt. The truth is, that, whatever arguments may be urged againſt an overgrown ariſtocracy in a highly monarchical government, they conſtitute ſtill the great barrier againſt the exorbitant power and uſurpation of the crown itſelf. Were the natural jealouſy, the conſanguinity, the combined influence of a high-minded nobility, in a government, deſtroyed; the liberty, or rather the remains of liberty, in that ſtate, would

would be quickly annihilated, and complete deſpotiſm eſtabliſh itſelf upon its ruins.

By his high office, the Marajah had the ſole power of directing the national vengeance againſt the common foe, and of ſummoning all the inferior rajahs to the field, at the head of the quota of troops which every ſeparate province was compelled, by ſtipulation, to furniſh. The imperial army of India, therefore, when aſſembled together, muſt have conſiſted of an immenſe body of horſe, foot, and elephants; and we ought not to conſider as ſo highly exaggerated, the account given in claſſical writers, that Sandrocottus, or, in Sanſcreet, *Chandragupta*, who had uſurped the throne of the ancient Marajahs on the Ganges, had raiſed an army, to oppoſe the Greeks in that quarter, of 600,000 men. This number is in perfect uniſon with the immenſe extent, power, and population, of India, at that period, and greater armies have been ſince brought into the field of Indian war. Strabo, indeed, from Megaſthenes, informs us,* that, in his time, the great Indian empire conſiſted of one hundred and eighteen nations,

* Strabonis Geograph. p. 719.

each

each of which was governed by its own peculiar prince: a deſcendant of Porus afterwards wrote to Cæſar, then at Antioch, ſoliciting his alliance, and boaſting, that he, at that time, reigned over 600 tributary princes, but moſt of theſe could only have been governors of cities, or chiefs of ſmall cantons, dependent on his power. The regal honours in their families, as in the chiefs, were hereditary; they had the power of life and death, but were compelled, by tremendous obligations and the forfeiture of caſt, to regulate their deciſions by the grand legiſlative code of Menu. An aſſembly of the Brahmins, ſitting in judgement on a vicious or tyrannical king, may condemn him to death, and the ſentence is recorded to have been executed; but no crime affects the life of the Brahmin, he may ſuffer temporary degradation from his caſt, but his blood muſt never ſtream on the ſword of juſtice; he is a portion of the deity, he is inviolable, he is invulnerable, he is immortal!

So profound, ſo inextinguiſhable, was the reſpect, with the dawn of life, inculcated, and, through every period of it, paid, both by prince and ſubject, to that code; ſo perfectly did every member of the four claſſes know

and, from dread of the horrible puniſhment denounced againſt the breach or omiſſion of them, perform the duties incumbent on his peculiar ſtation; that, while piety and fortitude reigned at the helm, while the Maha Rajah himſelf continued faithful to the awful truſt repoſed in him, while the Brahmins remained vigilant and uncorrupted, the utmoſt tranquillity could not fail of pervading every quarter of the empire. Strabo, with his uſual correctneſs, informs us, that the Indian ſovereigns were obliged to ſhew themſelves publicly to the people once a day, to hear petitions, to redreſs grievances, to determine differences ariſing among their ſubjects; nor could they riſe from the tribunal till all were heard, and every claim adjuſted: the deſcendants of Timur religiouſly adhered to this Indian rule. In all negotiations, the public faith when once plighted in any treaty was inviolably preſerved. The figure of an anchor, the ſacred ſymbol of truth and ſtability, was engraved upon the grand imperial ſignet, uſed upon thoſe ſolemn occaſions.*

While the main ſpring of this vaſt political machine performed its functions with un-

* Philoſtratus, lib. iii. cap. 11.

deviating

deviating regularity, all the inferior movements were in perfect uniſon with it; but, when the repeated invaſion of Tartar and Perſian warriors had at length ſhaken to its centre their ancient throne, and weakened their enormous power, a general relaxation, both in diſcipline and morals, took place in all the ſubordinate branches of the monarchy. The inferior rajahs renounced their accuſtomed obedience to their chief; and, aſpiring to independence, in their reſpective diſtricts, forgot equally the laws of Menu, and reverence for the Brahmin who ought to have enforced it; and the well-poiſed empire of Hindoſtan tottered to its foundations. Internal diviſions added to the convulſion of the empire from foreign aſſaults, and the hoſtile rajahs endeavoured in the field, to which they had been trained, to wreſt from each other the provinces which their treachery had uſurped.

The Indian nation ſeem to have continued in that happy and envied ſtate, before deſcribed, from the foundation of their empire, under Rama, till within about 700 years of the Chriſtian æra, when the firſt Tartar and Perſian invaſions commenced, and were at

firſt vigorouſly reſiſted; but India and the uncounted treaſures of its peaceable monarchs, accumulated during a ſeries of centuries, afforded too ſtrong a temptation to thoſe valiant marauders to be relinquiſhed after only one or two repulſes; the attack was therefore renewed by both with numbers vaſtly increaſed and with tenfold vigour, and the Maha Rajah, if not wholly conquered, was ſubjected at leaſt to tributary dependence: thus they continued to the time of Alexander's invaſion. The great bond of union, by which ſo vaſt an empire had been holden together, was already broken; and, both in its eaſtern and weſtern quarters, the inferior rajahs had uſurped authority and privileges unknown to the principles and original conſtitution of the monarchy. The ſituation of things, however, at the period of the Greek irruption, fully verifies the preceding repreſentation both of the affairs of India and the characters and pretenſions of the rajahs. It demonſtrates that the great feudatory princes of India, though they retained their martial ſpirit and their uſurped dominions, no longer obeyed the ſummons of

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the Marajah as their ſupreme chieftain to the embattled field; no longer elevated thoſe united banners againſt the foreign invaders of their country, which, in ancient periods, formed around his throne an impregnable bulwark. Their conduct to their chief was perfidious; and, that they no longer cheriſhed that harmony, even among one another, which might render them formidable to the common foe, is evident from the motives which Strabo aſſigns for the junction of Taxiles, whoſe dominions ſpread for a great extent along both the ſhores of the Indus, with Alexander. The reaſon alleged for the ready aſſiſtance which he afforded Hæpheſtion, in preparing the bridge of boats on which he paſſed that river, was the rooted enmity he bore to Porus, his rival, whoſe dominions lay on the eaſt of the Hydaſpes, and the nobleſt ſpecies of glory which that conqueror obtained in India was his uniting of thoſe rival chiefs in bonds of laſting friendſhip.

Of the nations at that period inhabiting the weſtern region of India, and of the rajahs that governed them, we have juſt ground to entertain the moſt elevated and honourable

notions, ſince they fought with the moſt undaunted firmneſs againſt the veteran troops of Alexander, — againſt troops that were the flower of the armies of Greece, converſant, from long and ſevere experience, in all the various movements and all the intricate buſineſs of war, as well as furniſhed with every dreadful and effective engine for carrying it on with vigour and ſucceſs. Yet, neither the terror of the new arms which aſſailed them, nor the intrepidity of a new enemy whom they oppoſed, could damp the ardour of their fortitude. In the deſperate ſiege, the novel and terrific appearance of the immenſe battering machines prevented not the inveſted garriſon from making the moſt ſpirited efforts againſt their invaders; and it was with hardly any remains of life that the adventurous invader himſelf was borne on his ſhield from a principal city of the Oxydracæ, whoſe name, by concealing it, it would ſeem as if they were afraid of immortalizing. Every new river which he croſſed, every new province which he attempted to ſubjugate, his hardy Indian adverſaries ſtill diſputed, with a fortitude that ſhrunk from no danger, with an ardour which no fatigue

could

could abate, and with a perſeverance that muſt have been crowned with ſucceſs againſt an enemy not deemed invincible. Again and again driven from the field, they ſtill continued to rally their diſperſed forces; and, although the Oxydracæ were defeated at Sangala, they renewed the engagement near the ſhore of the Indus. It may be urged that the veracity of the Greek hiſtorians ſtands upon a ſuſpicious foundation, and that they who could degrade themſelves ſo far as to compliment Alexander with the honours of divinity would not ſcruple at a falſehood to enhance his celebrity; but would naturally be led to magnify his enemies, with intent to increaſe the glory which victory, under ſuch circumſtances, muſt infallibly bring along with it. The Khettri, or war-tribes of India, however, have not leſs in modern than in ancient periods indubitably eſtabliſhed their right to the diſtinguiſhed character of heroic fortitude. The Mahrattas, one of thoſe tribes in particular, may conteſt the palm of undaunted valour with the fineſt and beſt diſciplined troops of Aſia, and bid fair, at ſome future auſpicious period, effectually to liberate their country from the

galling yoke of their Mahommedan tyrants.

Having taken the above general ſurvey of the duties and functions aſſigned to the firſt and ſecond claſſes of the Hindoos, it would be unpardonable to omit mentioning the guardian, the paternal, attention extended by the ancient legiſlature of India to the two inferior caſts; who, while they contributed ſo materially by their induſtrious exertions as merchants, huſbandmen, mechanics, and in the ſtill humbler ſervile capacity, to the ſupport, the comfort, and even the luxury, of the ſuperior orders, had a right to expect, and fully enjoyed, the protection and foſtering care of the government under which they toiled. It muſt here be noticed, that the ſovereign of India has been immemorially conſidered as the ſole proprietor of the ſoil;* and, under ancient grants from the crown, the great Zemindars hold their lands on the eaſy terms of paying a ſixth part of the annual produce to that ſovereign for his ſupport and the ſubſiſtence of the national armies. Ancient writers ſay, that a fourth was

* In the code of Hindoo laws, the king is declared "lord-paramount of the ſoil," p. 194. Calcutta, quarto edit.

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the ſum ſtipulated between the ſovereign and the renter of the land; but I have elſewhere produced a paſſage to prove that it was only a ſixth, which is a ſtill more lenient deduction from his profits. It might be called a perpetual leaſe; for, the punctual payment of that ſixth ever ſecured the poſſeſſion of the farm to the family who rented it; and, in the ancient æras of the empire, it deſcended from father to ſon in the third caſt by a kind of hereditary right. To ſo important a member of the community as the cultivator of the ground, in a country where the inhabitants ſubſiſt principally on vegetable productions, it was but conſiſtent with the higheſt policy to render his ſituation comfortable and his property inviolably ſecure from invaſion. This is done in a moſt ample manner, by a ſeries of wiſe and humane laws, in the chapter of the code that concerns the third claſs; and which we ſhall preſently more particularly notice. By thoſe laws, he was for ever exempt from all the burden of public ſervice military and civil; he ſaw, but felt not, the tempeſt of battle which raged around him; hoſtile ſquadrons in the ardour of purſuit and victory reſpected the property

property and the perſon of the huſbandman. In the ancient periods of the empire, Strabo tells us, it often occurred, that, while in one field the flames of war ſpread havoc and deſtruction, in that adjoining, the unmoleſted huſbandman was beheld in ſecurity tilling the ground, and providing by his induſtry againſt its diſaſtrous ravages.* There was, indeed, one apparent burden under which the huſbandman laboured; but his devotion to the religion of his fathers forbade him to eſteem it as ſuch. The king had his *ſixth* by law allotted to him; but *all*, if he were diſpoſed to take it, was the Brahmin's. Among the fruits and grain of the earth he ſelected the choiceſt for his own uſe and the ſervice of the temple. It was a ſacred claim beyond the arbitration of man; and the infatuated devotee, inſtead of withholding the boon demanded, however great, exulted to be thought worthy of the partial favour of heaven in accepting it.

The merchant was equally protected in his property with the huſbandman; a moderate tribute paid the government, for li-

* Strabonis Geograph. p. 704.

berty

berty to exerciſe his employ, ſecured him that protection. The artiſan, the labourer, upon the ſame terms, ſhared ſimilar advantages. Every name was enrolled according to his caſt, his occupation, and his rank in that caſt. A moſt rigid and vigilant police pervaded equally the city and the country. Innumerable officers were appointed in every diſtrict of the empire to collect thoſe tributes, to inſpect the ſtate of the public roads, and thoſe objects of high importance in a country occaſionally ſubject to droughts from defective inundations, the *tanks*, or reſervoirs; to mark out anew the boundaries of lands deſolated by the ravages of the more violent and deſtructive ones; to ſuperintend the public inns, or *choultries*, deſtined by this hoſpitable nation for the accommodation of pilgrims and ſtrangers; to preſerve, free from annoyance or obſtruction, the paſſages through foreſts and over the great rivers in a country where a vaſt internal commerce vigorouſly flouriſhed; and, finally, to tranſmit to the fountain of government conſtant and faithful reports of whatever fell beneath their juriſdiction, in which the leaſt fraud or prevarication was puniſhed with death. The legiſlative

legiſlative code ſanctioned and fortified the vigour of the police with all its authority, minutely pointing out to every claſs its peculiar duties, and alternately uttering, as the party ſeemed moſt likely to be affected by it, the ſoothing language of reward or the menaces of vengeance.

Thus the merchant is animated to liberality in dealing by the nobleſt precepts and incentives; the mechanic is deterred from injuſtice — the falſe weight and the deceitful balance — by the moſt dreadful denunciations of the vengeance of heaven againſt extortion; while the menial ſervant and labouring *cooley* are comforted with the cheering hopes that diligence in their reſpective ſtations will procure them favour in the ſight of the all-ſeeing Brahma, and that their abject ſituation in this tranſitory world is only meant to prove their virtue and integrity amid the preſſure of reproach and poverty. In truth, the ſituation of all the inferior claſſes is attempted to be made eaſy to them by perpetually impreſſing the maxim that they are only doing penance in thoſe humble ſtations for crimes committed in a former ſtate of being; and, though the limits aſſigned their

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ſphere of action in this ſtage of exiſtence are irrevocably fixed, yet the path is open for perſevering virtue and piety to gain the ſummit of perfection in another ſtage of it, — even to be born again in the lofty Brahmin caſt and rule the race of monarchs, at whoſe nod they now tremble. The tribe of Chandalah, or *the outcaſt tribe*, awakens horrible ideas in the human mind; but, as I have nothing new to offer on the ſubject, I muſt refer the reader to what I have related in a former volume concerning that deſpiſed and miſerable race.

In every retroſpect on the ancient Hindoo government it will be obſerved, that, while its politic legiſlator held out to perſevering virtue and patient obedience the moſt alluring rewards, it aſſumed the moſt inflexible aſpect towards criminals of every deſcription. To temporal puniſhments the moſt dreadful, and to corporeal mutilations the moſt ſanguinary, in order to impreſs his mind with deeper reverential awe, were added all the terrors of the ſpiritual anathema, tormenting dæmons and the *gehenna of gnawing ſerpents*; for that is the true Hindoo hell, and demonſtrates the intimate connection of its theo-

logical

logical ſyſtem with our own, of which, in its leading features, it is an evident perverſion. What is not a little ſingular in this code, theſe preſent puniſhments and future terrors are often denounced againſt crimes comparatively trivial, with as much violence as againſt offences of the deepeſt enormity, as will hereafter be ſufficiently manifeſt; in ſhort, the ſtern dogmas inculcated by it, ſanctioned by the combined authorities of heaven and earth, allowed of no relaxation in the ſevere diſcipline which it enjoined whether in moral or civil concerns. It was the awful manifeſto of the deity; and, both in its ſublimeſt and leaſt important injunctions, the ſtricteſt obedience was alike indiſpenſable. "PUNISHMENT," ſays the Hindoo code, "is the magiſtrate; puniſhment is the inſpirer of terror; puniſhment is the nouriſher of the ſubjects; puniſhment is the defender from calamity; puniſhment is the guardian of thoſe that ſleep; puniſhment, with a black aſpect and a red eye, terrifies the guilty."* Conſonant to this maxim, the laws of Draco himſelf were not more deeply en-

* Halhed's Code of Gentoo Laws, cap. 21. ſect. 8.

graved

graved in blood than many of the precepts in this tremendous code. Theſe ſanguinary maxims it is impoſſible to aſcribe to Menu: what was *remembered* from that legiſlator was, we may conclude, only *ſeverely juſt*, but not cruel; we may reaſonably refer to him all that is mild and humane in theſe Inſtitutes, and ſome neceſſary precepts of a more rigorous nature; but, as his progeny degenerated, as the people gradually became more corrupt, the princes more deſpotic, and the Brahmins more powerful, it was thought neceſſary to add new and more terrible laws to thoſe which, in the primitive ages, were deemed ſufficient to control the diſturbers of the public tranquillity. The hypotheſis on which this work and that of Mr. Bryant have conſtantly proceeded, and both of which record the invaſion of India in early periods, and the conqueſt of the virtuous Shemites by the daring and nefarious Cuthite race, will ſufficiently point out to the attentive reader the period of this great national change, and the fatal cauſe of this general depravity.

It ſhould ſtill be remembered, however, that many of the laws inculcated in the Brahmin code are in a high degree liberal and humane,

humane, founded on the practice and deciſions of the earlieſt ages, when, as yet, no ſyſtem of juriſprudence was committed to writing. Many alſo of the civil inſtitutions, enumerated in it, go back to the days of Noah, though moſt have been dreadfully perverted; for, I muſt repeat in this place what has been frequently aſſerted in this work, and, indeed, forms in ſome degree the baſis of it, that in the ancient world there were certain grand and primitive cuſtoms diffuſed univerſally over all nations; cuſtoms founded on the general conſent and original creed of mankind, confirmed by immemorial laws and ſanctified by pious traditions; cuſtoms which probably flouriſhed in their full vigour and purity, under the domeſtic patriarchal roof of Noah, before the diſperſion, which paſſed into all nations with the firſt coloniſts, and were obſerved in their vigour and purity, or debaſed and degraded in every country, according to their rectitude in adhering to, or depravation in receding from, the inſtitutions of their primæval anceſtors. For the aſpect of unrelenting ſeverity aſſumed in general by legiſlative codes of very high antiquity, it may be urged as ſome degree of palliation, that

that the crimes, againſt the commiſſion of which they were principally meant to guard, are not ſuch as generally ſpring up among mankind in an aſſociated and civilized ſtate; but ſuch dreadful offences as men ſcarcely emerged from barbariſm, and under the influence of all the unbridled paſſions which agitate to tempeſt the human boſom, may be ſuppoſed capable of perpetrating: inceſt of the deepeſt dye, plunder and robbery, midnight murder, and the violation of virgin beauty. Againſt theſe crimes, ſo fatal to infant ſtates, it was neceſſary to raiſe the ſtrongeſt rampart which the terror of legal authority could erect againſt them, and the extreme neceſſity of the occaſion will too often juſtify their being *written in blood.*

In Eaſtern climes, where deſpotiſm has ever reigned in its meridian terror, in order to impreſs the deeper awe and reſpect upon the crowd that daily thronged around the tribunal, the hall of juſtice was anciently ſurrounded with the miniſters of vengeance, who generally inflicted, in the preſence of the monarch, the ſentence to which the culprit was doomed. The envenomed ſerpent that was to ſting him to death, the enraged elephant that

was to trample him beneath his feet, the dreadful inſtruments that were to rend open his bowels, to tear his lacerated eye from the ſocket, to impale alive, or ſaw the ſhuddering wretch in ſunder, were conſtantly at hand to perform their deſtined office. The audience-chamber, with the ſame view, was decorated with the utmoſt coſt and magnificence, and the Eaſt was rifled of its jewels to adorn it. Whatever little credit may in general be due to Philoſtratus, his deſcription of the ſplendid palace and regal pomp of Muſicanus too nearly reſembles the accounts, given us by our own countrymen, of the magnificence which at preſent diſtinguiſhes thoſe more powerful rajahs, who ſtill retain a portion of their ancient hereditary rights and domain, to admit of doubt, eſpecially in thoſe times when, as yet, the hoarded wealth of India had not been pillaged by the avarice of ſucceſſive Mahommedan plunderers; the artificial vines of gold adorned with birds of various colours in jewellery, and thick ſet with precious ſtones, emeralds, and rubies, hanging in cluſters, to reſemble grapes in their different ſtages towards maturity; the ſilver cenſers conſtantly borne before him,

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as a god, in which continually burned the richeſt perfumes of the Eaſt; the robe of gold and purple with which he was inveſted; and the litter of gold, fringed with pearls, on which he was carried in a march or to the chaſe.* The Mahommedan ſovereigns, doubtleſs in imitation of the ſplendour in which the ancient Indian monarchs lived, had alſo their vines of gold, thrones encruſted with diamonds, and ceilings plated with ſilver, as may be ſeen in the chapter of the Geographical Diſſertation, that relates the magnificent decorations of the imperial palaces of Delhi and Agra in the times of the emperors Jehaun and Akber.

In ſhort, whatever could warmly intereſt the feelings and ſtrongly agitate the paſſions of men; whatever inflames hope or excites terror; all the engines of a moſt deſpotic ſuperſtition and of a moſt refined policy were ſet at work for the purpoſe of chaining down, to the preſcribed duties of his caſt, the mind of the bigotted Hindoo; to enforce undeviating obedience to the law, and ſecure inviolable reſpect for the magiſtrate.

* Philoſtratus, lib. iii. cap. 26. Curtius, lib. viii. cap. 9.

Hence his unaltered, his unalterable, attachment to the national code and the precepts of the Brahmin creed. As it has been in India from the beginning, ſo will it continue to the end of time and the diſſolution of nature: for the daring culprit who tramples on either, heaven has no forgiveneſs, and earth no place of ſhelter or repoſe.

CHAP-

## CHAPTER II.

*The Age of the* INSTITUTES OF MENU, *as aſcertained by aſtronomical Computation, reaches back ſo very near to the Flood, as to juſtify the Concluſion that they exhibit to us the ſhattered Remains of the grand* PATRIARCHAL CODE, *but debaſed, and perverted to political Purpoſes, by the Brahmins. — Mr. Halhed's* GENTOO CODE *and the* INSTITUTES *the only genuine Sources of European Information on the Subject of ancient Indian Juriſprudence. — In many Inſtances, both ſtrongly reſemble and illuſtrate the* LEVITICAL *Law. — Some of thoſe Inſtances adduced, together with numerous Proofs of their being very ſanguinary and partial Codes. — Mr. Halhed's being rather a Summary of adjudged Caſes, than a complete Digeſt of Indian Law, is firſt conſidered. — A regular* ANALYSIS *is then attempted of the Work of* MENU *through its Twelve grand Diviſions; interſperſed with ſuch Obſervations as ſuggeſted themſelves to the Author in making it.*

HAVING taken the preceding general ſurvey of this ancient and wonderful code of Indian juriſprudence, and of the ſpirit that breathes throughout it, I ſhall, in this chapter, after a few introductory obſervations, proceed to give a ſummary analyſis of each of the twelve chapters it contains, and notice ſuch other ſtriking particulars in it as are more remarkably deſerving of attention. In theſe prefatory obſervations, I ſhall have before me both the Inſtitutes as preſented to the public by Sir William Jones, and the Hindoo Code of Mr. Halhed, which was compiled by venerable Brahmins as an epitome of that and other ancient law-treatiſes now grown in ſome degree obſolete, or, at leaſt, in leſs general uſe.

The Inſtitutes are ſtated, by the tranſlator, in the elegant preface that introduced them to the European world, to be of a date far anterior to the laws of either Solon or Lycurgus; the firſt promulgation of them, as a code of laws, he is of opinion was coæval with the eſtabliſhment of the firſt monarchies in Egypt or Aſia; and, by an ingenious aſtronomical calculation, ſtrengthened by

by the internal evidence of the book itſelf, he endeavours to prove that the firſt reduction of them to writing, in their preſent form, was in the year 1280 before Chriſt. A very long ſeries of ages muſt, indeed, have elapſed before a body of laws ſo extenſive, ſo complicated, ſo minute in its deciſions upon almoſt every poſſible ſpecies of offence committed againſt the peace of ſociety, and abounding with ſuch excellent maxims for the wiſe government of a vaſt empire, could have been collected together, and the caſes in civil, religious, and commercial, concerns, which are enumerated in the courſe of it, have been determined. We are led gradually back by this ſtatement and theſe reflections to the earlieſt poſt-diluvian centuries, and perceive, amidſt a thouſand interpolations of artful prieſts and intereſted legiſlators, certain, though faint, gleams of the patriarchal code that prevailed in the firſt ages.

A tradition very generally prevailed among the ancient Hebrews, that, after Noah had deſcended from the ark and offered to God that acceptable ſacrifice which preceded the covenant the Almighty condeſcended

to make with him, that he would never again inundate the globe, the great patriarch, at the ſame time, received certain general laws for the regulation of the conduct of the human race at large, till the more particular manifeſtation of his will from Sinai. Theſe are, in number, ſeven, and are denominated the *precepts of the Noachidæ.** By the firſt of theſe precepts, idolatry, or the adoration of falſe gods, is forbidden; by the ſecond, blaſpheming the name of the Creator; by the third, the ſhedding of human blood; by the fourth, inceſtuous and unlawful conjunctions are prohibited; by the fifth, the plunder of another's property; by the ſixth, the eating of fleſh cut off from the living animal; and, by the ſeventh, a ſolemn injunction is given for the inſtitution of judges and magiſtrates to enforce obedience to the above laws. In theſe precepts, according to the Hebrew rabbins, are ſummed up the great principles of the Law of Nature; which, however, are more juſtly and conciſely ſtated, in Juſtinian's celebrated code, to be included in the three following comprehenſive maxims;

* Selden de Jure Nat. et Gent. lib. i. cap. ult.

that

that we ſhould live honeſtly, moleſt nobody, and render to every man his due.

In truth, the beſt rule of human conduct, independent of revelation, is the *light of unabuſed reaſon*, which is very properly conſidered, by Grotius, as the great original Law of Nature, coæval with the creation of man, formed in *that* radiant image of his Sovereign Maker; a law, the peculiar growth of no clime, age, nor condition, but operating, with various energy, in every region, and among every people of the habitable globe.

This law, ſimple, perſpicuous, ſublime, continued, for a time, to be the ruling guide of man's conduct, till paſſion, gaining the aſcendant, obſcured the light of that glorious internal principle, and, precipitating Reaſon from her throne in the human boſom, uſurped the ſovereignty over his will and appetites. Still, however, though the light of reaſon became eclipſed, the Almighty Ruler had originally ſo formed man as not to leave himſelf entirely without a witneſs in the human mind. To the ſuperintending and directing power of reaſon, he added another internal principle intended to limit the exceſs of vice and control

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the predominant fury of paſſion. It is that principle to which we all are ſo intimately conſcious, which determines what is morally right or wrong in human action, and whoſe judgement is attended with conſequent ſelf-applauſe or condemnation. This ſolemn and ſecret monitor, occaſionally lifting its awful voice, prevented that rapid immerſion in guilt, into which his paſſions, entirely unreſtrained, would otherwiſe have hurried deluded man, and his deſcent down the ſtages of vice was ſlow and gradual. In proceſs of time, however, the criminal affections, from repeated indulgence, becoming more headſtrong and ungovernable, the admonitions both of the *thinking* and the *judging* power were alike diſregarded, and human nature was degraded by the baſeſt enormities. The ſcene then became totally and dreadfully altered. The ties of kindred, the ſtrongeſt and moſt pleaſing, were univerſally ſpurned; the ſacred duties of hoſpitality were neglected; the ſword determined all rights; and rapine and violence deſolated the whole earth.

In the horrid and convulſed ſtate above deſcribed was the ancient world, when it pleaſed the Deity, by a dreadful exertion of his

his power, to put a ſtop to the farther growth of iniquity, and to exemplify his juſtice in the deſtruction of it. To the father of the renovated world he doubtleſs vouchſafed, as has been hinted, a more peculiar manifeſtation of his will for the government of its new inhabitants, and probably ſome general precepts, like thoſe aſcribed to the Noachidæ, were imparted to him. Theſe may in part have formed the baſis of the ancient code under conſideration, but the numberleſs puerilities, the endleſs train of ſuperſtitions, ſome afflictingly painful, and others diſguſting in the extreme, the fanciful doctrine of tranſmigration interwoven with the very ſubſtance of it, the falſe philoſophy inculcated in it, and the extremely ſanguinary puniſhments ſometimes denounced in it, muſt be referred to the artful policy of the Brahmins and to deſpotic princes who ſucceeded the firſt great legiſlator. The doctrines it contains are ſaid to have been *orally* delivered by Brahma to Menu; a circumſtance deſerving conſideration, as opening a wide and almoſt boundleſs field for fraudulent interpolation; at the ſame time its precepts are ſanctioned by the moſt dreadful anathemas, and extend the horror

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of puniſhment to the moſt diſtant ſcenes of exiſtence.

One of the moſt remarkable precepts in this code is that ſo congenial with the Levitical law, that a brother ſhall marry the *widow* of the *deceaſed brother*, and raiſe up ſeed to him; this law, however, is declared to be obſolete in this miſerable Cali age. Inſtitutes, p. 363. Another of its ordinances, which alſo affords a ſtriking reſemblance to the code of Moſes, doubtleſs founded on the practice of the primitive ages, and ordained as a memorial of the great atonement, is the ceremony of the *ſcape-horſe*, which is ordained to be celebrated in a public aſſembly of all the Hindoo tribes; and the horſe, after many myſtic rites, like the *ſcape-goat* of the Hebrews, and we may add the *red heifer* of the Egyptians,* is driven with execration into the deſerts, and ſuppoſed to be loaded with the ſins of the exonerated nation.† There cannot be the leaſt wonder at theſe and many other ſtriking circumſtances of ſimilitude occurring in the two codes, entertained by thoſe who have attentively peruſed

* Herodotus, lib. ii. cap. 39.

† See Halhed's Gentoo Code, preface, p. 21.

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the preceding volumes, and conſidered the plan upon which I have conſtantly endeavoured to explain theſe reſembling traits in the ancient cuſtoms and codes of Aſia. Indeed Mr. Halhed, in his preface, intimates that the very name of the country is derived from *Hind*, whom Eaſtern traditions make the ſon of Ham, and conſequently the grandſon of Noah.* But, whether he were or not, we are certain, from their own records, and from the general worſhip of Rama prevailing at this day throughout their whole empire, that this grandſon of Noah, this mighty chieftain, this conqueror of the degenerated race of rajahs, was the firſt regular univerſal monarch of India; and, from the ſame ſource, it is natural that a code of laws, ſimilar in its great outlines, ſhould proceed. A great portion of the Moſaic code, indeed, was indubitably *inſpired*; but, as indubitably, a conſiderable part of it was the reſult of primitive precepts and cuſtoms, which, from immemorial preſcription, were already diffuſed and predominant in the Eaſt.

* See Halhed's Gentoo Code, preface, p. 21.

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An *eye for an eye and a tooth for a tooth* appears to have been the rigid maxim of the ancient Hebrews: and it is here affirmed, that, with whatever limb an offence is committed, that limb ſhall the king amputate, for the prevention of ſimilar crimes. Inſtitutes, p. 232.

The trial by various kinds of water ordeal, which ſo repeatedly occurs throughout theſe codes, as the criterion of guilt and innocence, forcibly reminds us of the ſimilar trial ordained, by the Deity himſelf, for the detection or acquittal of adultery by the *bitter waters of jealouſy*. Numbers, v. 30. The preſcribed diet and ſtrict attention enjoined in regard to animals clean and unclean, as well as the purifications of women and of men after contact with a deceaſed perſon or any object that imparts defilement, have alſo a very ſtriking reſemblance with thoſe enjoined in the Levitical code. Thoſe in particular that have relation to bodily impurity, from touching a dead body, are enumerated, in almoſt ſimilar words, in the nineteenth of Numbers; a circumſtance for which I have already endeavoured to account. Though ſlavery be allowed, the crime of *men-ſtealing* is equally interdicted

terdicted in the Hindoo and Levitical code. See Deuteronomy, chap. xxiv.

" In ſhort, the whole office," ſays Mr. Halhed, " as well as the ſacred pre-eminence of the Brahminical tribe, is almoſt an exact counterpart of that of the Levitical. The Levites were particularly forbidden wine; ſo are the Brahmins. The Levites were more than others enjoined to avoid the contact of all uncleanneſs; ſo are the Brahmins. The Levites were to aſſiſt the magiſtrate's judgement in difficult caſes; ſo are the Brahmins. And, in every other reſpect, the reſemblance might well authorize a ſuſpicion, that they had originally ſome remote affinity to each other, though conjecture cannot poſſibly trace the ſource of the connexion." In anſwer to this remark, I beg leave to expreſs a hope that I have effectually traced that ſource, by a traditional channel, to a primæval patriarchal code.

But, ſubjoins our author, it is not only to the laws of Moſes that this code bears a ſtriking likeneſs; many other parts of the Holy Scriptures may hence be elucidated or confirmed. To mention only two inſtances: in the book of Geneſis we find Laban excuſing

cuſing himſelf, for having ſubſtituted Leah in the place of Rachel to Jacob, in theſe words: *It muſt not be ſo done in our country, to give the youngeſt (daughter) before the firſt-born:* this happened long before Moſes was born. Thus, in the Hindoo code, it is alſo made criminal for a man to give his younger daughter in marriage before the elder, or for a younger ſon to marry while his elder brother remains unmarried.

There is a peculiar law alſo in this code, by which a father is prevented from diſpoſſeſſing his children of their property in favour of aliens, and by which he is compelled to give them, if they demand it during his life-time, even though diſobedient and rebellious, the diſtinct portion which falls to the lot of each: this is highly illuſtrative of the parable of the prodigal ſon.

In proof of the unrelenting ſeverity of the Hindoo code, in PENAL CASES, I have put together the few following examples.

An adultreſs is condemned to be *devoured alive* by dogs in the public market-place. Inſtitutes, p. 236. In the next ſentence, the adulterer is doomed to be bound on an iron bed, *heated red-hot*, and there to be burned to death.

death. Ibid. But, what is not a little remarkable, for the ſame crime, a Brahmin is only to be puniſhed with *ignominious tonſure*. P. 237. He, who has committed *inceſt*, is doomed to be extended on a red-hot iron bed, or be made to embrace, till he die, the *red-hot iron image* of a woman. P. 322. Of night-robbers it is ordained, that the hands be firſt lopped, and that they afterwards be fixed on a ſharp ſtake, *i. e.* impaled. P. 281. The witneſs, who gives falſe evidence, ſhall be faſt bound under water, in the ſnaky cords of Varuna, for a hundred years. P. 199. Naked and ſhorn, tormented with hunger and thirſt, and *deprived of ſight*, ſhall the ſame man go with a potſherd to beg food at the door of his enemy. P. 201.

For inſulting a Brahmin with invectives, an iron ſtyle, ten fingers long, ſhall be *thruſt red-hot down his mouth*: for offering only to inſtruct him in his profeſſion, *boiling oil* ſhall be dropped into his mouth and ears. P. 224. For ſtealing kine, belonging to prieſts, the offender ſhall inſtantly loſe *half of one foot*. P. 231. An aſſaulter of a Brahmin, with *intent* to kill, ſhall remain in hell

for a *hundred* years: for actually ſtriking him with the like intent, a *thouſand*. As many ſmall pellets of duſt as the blood of a Brahmin collects on the ground, for ſo many thouſand years muſt the ſhedder of that blood be tormented in hell. P. 336. But, though ſuch frequent exemptions occur in reſpect to the Brahmins, deſcended from heaven, a portion of the immortal gods, none are made in favour of KINGS; and we cannot but admire the rigid ſpirit of impartial juſtice that declares, where a man of inferior birth ſhall be fined *one pana*, the king, who ought to be the fountain of honour and equity, for the ſame offence ſhall be fined a *thouſand*. P. 232.

Having had occaſion to refer above to Mr. Halhed's Code, which I before obſerved is rather an abridged than a complete ſtatement of the general juriſprudence of India, compiled, from their moſt venerated books on the ſubject, by learned Brahmins aſſembled, by the invitation of Mr. Haſtings, at Benares, in 1773; I ſhall, in this place, inſert a few other remarkable precepts from that book, and cloſe my obſervations upon it, that our ſubſequent attention to the Inſti-

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tutes themſelves, the grand original Code of Menu, may not be interrupted.

Several very ſanguinary perſonal inflictions in penal caſes occur there alſo; and, among other ſevere precepts, it is ordained that, if a man be guilty of groſs fraud in trade, the magiſtrate ſhall cruſh his hand, noſe, and teeth: if he repeat that fraud, the magiſtrate ſhall cut him into pieces with *a razor*. P. 245, quarto edition. Women, murdering their huſbands or children, ſhall have their ears, noſe, hands, and lips, cut off, and afterwards be expoſed, if not pregnant, to be killed by cows: if they attempt to do it by poiſon, the puniſhment decreed is to have a large ſtone faſtened round their neck, and themſelves thrown into the river. P. 306. Theft of goods is puniſhed with, in the firſt inſtance, cutting off the hands; in the ſecond, with crucifixion. P. 248. For ſtealing a woman, the criminal ſhall periſh extended on a plate of red hot iron. Ibid. For ſtealing an elephant, a horſe, camel, or cow, one hand and one foot of the criminal ſhall be amputated. P. 249. Even the Brahmin that ſteals is, with great ſeverity, puniſhed corporally or baniſhed,

but never put to death; his hair may be cut off, his eyes torn out, and, what is rather a curious kind of puniſhment, reſembling that anciently inflicted by Seſoſtris on cowards, his forehead is to be marked, by means of a red-hot iron, with the *pudendum muliebre*. P. 245. According to this code, adultery, in the male, is puniſhed by total caſtration, and the offender, it is added, ſhall afterwards be led naked round the city, mounted on an aſs. P. 271. Adulterers, whoſe crime admits of extenuation, as when deluded by the artifices of abandoned women, are branded in the forehead with the *pudendum muliebre*. Ibid. Unlawful games are puniſhed with a fine and corporal puniſhment, at the will of the magiſtrate: fraudulence at play with the loſs of two of the fingers. P. 289.

Deſtroyers of fruit-trees, or trees of ſacred uſe, and removing land-marks, are mulct with very high fines. P. 291. Of all domeſtic merchandize the king has a tenth for his tribute; of foreign merchandize a twentieth. P. 292. The inferior mechanic, labouring at his daily employ, ſhall ſuffer no deduction from his profit; and no tax ſhall be paid for

for articles uſed in the ſervice of the temple. P. 293. In the article of diet, onions, garlic, and wine, are abſolutely forbidden on pain of baniſhment. P. 295. Perſons who have no children, by applying to the magiſtrate, may adopt ſons, and they inherit as legal children. P. 298. The owners of elephants, oxen, and other animals, are reſponſible for all miſchiefs done by them, and ſubjected to high fines for their want of attention to them. By ſimilar penalties, the wearied or hungry bullock muſt not be forced to labour, nor ever worked beyond his ſtrength or out of due ſeaſon. P. 299. Medicines adminiſtered to cows to prevent their calving, malicious attempts to blight trees and plants or prevent their bearing fruit, are taxed with heavy fines. The father muſt not deſert his ſon, nor the ſon his father; the brother his brother; nor the friend his friend; without ſolid proof of guilt: thoſe who offend, in theſe points, are menaced with fines. The blind, the lame, the deaf, the unfortunate of all deſcriptions, muſt be reſpected in the public ſtreets, and have the way left clear for them. The ſubject muſt give way to the magiſtrate, the pupil

to the preceptor, and all to the Brahmin, under various penalties and fines. P. 302.

The Gentoo code, after enumerating an endleſs variety of local injunctions, principally reſpecting perſonal duties and purifications, provincial commerce, morals, obedience to ſuperiors, and the regulation of domeſtic concerns, concludes with a ſentence remarkable for the wiſe, but ſevere, ſpirit of equity that diſtinguiſhes it, allotting puniſhments and fines adapted to the degrees of knowledge and improvement ſuppoſed to be attained by each, and therefore rendering their offences proportionably heinous or mitigated. It is on the ſubject of theft, a ſubject which ſo conſtantly occurs, that we are unavoidably led to conjecture that the great maſs of the Hindoos are leſs ſtrictly honeſt in their dealings than they are, by ſome travellers, repreſented. If a Sooder, one of the loweſt of the four claſſes, commits a robbery, he ſhall pay eight times as much as he ſtole; if a Bice, he ſhall pay ſixteen times as much; if a Khettri, he ſhall pay a fine of thirty-two times as much; if he be a common Brahmin, he ſhall pay ſixty-four times as much; if he be a Brahmin

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of extenſive knowledge, he ſhall pay one hundred times as much; if he be a Brahmin of the higheſt claſs, he ſhall be fined one hundred and twenty times as much. Final page. If the ſame liberal caſt of ſentiment ran through every page, what a ſublime and glorious ſyſtem of juriſprudence would this code have preſented to Europe?

# THE LAWS OF MENU,

## SON OF BRAHMA.

### CHAP. I.

This initial chapter properly begins with an account of the creation of the world, and a general ſurvey of the objects contained in it.

Menu is repreſented, in the firſt verſe, as ſitting reclined, and wrapped in that divine abſorption which, it has been often obſerved, is a leading tenet in the religion of India. The holy ſages approach him with profound reverence; and, inquiring concerning the laws proper to be obſerved by the four orders, (a proof that the Indian empire was then

formed, and this diviſion of the nation then exiſting,) he unfolds to them the principles of all things and the manner and progreſs of creating them. It is here obſervable that water (not *light*, as in the Moſaic narration) is firſt produced; produced, not by a *mandate*, but by a *thought*, of the Creator. In that water is placed a productive ſeed which becomes an egg of gold (the ſphere) blazing with a thouſand beams. By the ſame *thought*, he cauſed that egg to divide itſelf in two parts, and, from theſe two diviſions, he framed the heaven above and the earth beneath.

The viſible world being thus formed, the immaterial mind is produced, an emanation from the *Supreme Soul*; and conſciouſneſs, or rather conſcience, the internal monitor. The creative ſpirit then proceeded to form the inferior deities and a number of genii exquiſitely delicate. It is ſublimely added, "He gave being to time, and the diviſions of time; to the ſtars alſo and the planets." He then produced the four great tribes, or caſts of India; the firſt from his *mouth*, the ſecond from his *arm*, the third from his *thigh*, and the fourth from his *foot*. It is

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aſſerted that the Hindoos underſtand theſe expreſſions in a literal ſenſe; but it is impoſſible for a diſpaſſionate European reader to conſider them in any other than an allegorical point of view. By the mouth, therefore, Menu muſt be underſtood to have meant *wiſdom*; by the arms, *ſtrength*; by the thigh, *commerce*; by the foot, *agricultural labour* and *obedience*: and the principle inculcated, I conceive, is, that wiſdom or piety, (for, both may be fairly ſhadowed out by the *mouth*, whence the dictates of the one and the prayers of the other proceed,) ſtrength or fortitude, external commerce, and domeſtic induſtry, form the four pillars of a great empire. Hence the four-fold politic diviſion of the Indian nation into caſts and profeſſional characters, intended eternally to inculcate, on legiſlators and princes, that important axiom.

Immediately after, ſucceeds a detailed account of created objects animal and vegetable, from the elephant to the gnat, from the lord of the foreſt to the creeper; and, what is ſingularly remarkable, all theſe are declared to have internal conſciouſneſs, all to be ſenſible of pleaſure and pain, all in a ſtate of

tranſmigration

tranſmigration in a world ever tending to decay.

The diviſions of Hindoo time, divine and human, from the twinkling of an eye to the day of Brahma, or a thouſand great ages, are next enumerated, and the four yugs are affirmed to be the allotted period of probation for the human race, or, rather, for countleſs races of human beings, "breaking like bubbles on the ſtream of time." Among theſe, the Brahmin, eldeſt-born of gods, who loads their altars with incenſe, who feeds them with clarified butter, and whoſe, in fact, is the wealth of the whole world, ever keeps his elevated rank. To maintain him in holy and voluptuous indolence, the Kattry, or rajah, expoſes his life in the front of battle; the merchant covers the ocean with his ſhips; and the toiling huſbandman inceſſantly tills the burning ſoil of India. We cannot doubt, after this, which of the Indian caſts compiled this volume from the *remembered Inſtitutes* of Menu.

## Chap. II.

The ſecond chapter is entirely devoted to the important concern of the education of the

the young Brahmin, and the conſideration of the duties incumbent on the ſacerdotal claſs, or firſt order.

Near the commencement it is declared that the great body of the eccleſiaſtical and civil laws of India is derived from two original ſources, the SRUTI, or what was heard from above, meaning revelation; and the SMRITI, or what was remembered from the beginning, meaning immemorial uſage. The man is declared anathematized who treats with contempt thoſe two fountains of all genuine juriſprudence; for, in truth, were thoſe dogmas to be rejected, the Brahmin dominion over the conſciences and fortunes of the Indians muſt inevitably fall to the ground. The conſecrated land, or paradiſe of India, is next, with geographical preciſion, aſcertained, and the SMRITI laws are declared to have been the immemorial uſage of that favoured region, when man flouriſhed in happineſs and innocence.

The manner of educating the young Brahmin is now preſcribed from his birth, and the minute attention paid, in every ſtage of that education, to cleanlineſs of perſon and veſtment, evinces that the ſacerdotal order

of

of India, like thoſe of ancient Egypt, conſider the cultivation of *health* as no inconſiderable part of religion. They ſeem, alſo, to have laid it down as a maxim, that a pure ſoul cannot exiſt in an impure body, and that every new birth, in the fleſhly tabernacle, conveys ſomething more than a corporeal pollution. It is ſcarcely poſſible, conſiſtently with decency, to detail their ideas on this delicate ſubject; yet muſt they not be paſſed over wholly unnoticed.

Thus, oblations to fire, that purifies all things, and holy rites on the birth of the child, expunge the ſeminal and uterine taints. Before the ſection of the navel-ſtring, the infant Brahmin muſt be made to taſte honey and clarified butter from a golden ſpoon. He muſt be named on the tenth or twelfth day, at a lucky hour, and under the influence of a benign ſtar; a proof that they cultivated aſtrology at this early period in India. On the fourth month he is to be carried out to ſee and admire the SUN, the ſecondary god of his future devotion. In the ſecond or third year, after his birth, the ceremony of tonſure muſt be performed; this

this was an old practice of the prieſts of Mithra, who, in their tonſures, imitated the ſolar diſk. In the eighth year he is inveſted with the zennar, or ſacred cord of three threads, in honour of the divine triad of India, Brahma, Veeſhnu, and Seeva. He muſt afterwards put on a mantle formed of the hide of a black antelope; he muſt have a girdle, the zodiacal zone of the Mithriac prieſts, formed of *munja*, or *cuſa*, graſs; he muſt have a wand or ſtaff of bilva or palaſs wood of ſuch a height as to reach his hair, and the ſtaff muſt be ſtraight, ſmooth, and without fracture. Thus apparelled, and ſtanding oppoſite to the ſun, he muſt thrice walk round the fire from left to right, (a ceremony which fully proves the origin of the triple turn, *ſun-ways*, of the Druids,) and then legally perform the ceremony of begging food of his relations. To explain this, I muſt obſerve that the Brahmin is always *ſuppoſed* to live by the charity of others, and to be a miſerable mendicant in this tranſient world of ſin and ſorrow. In another part of this chapter we are informed, that "the ſubſiſtence of a ſtudent by begging is held equal to faſting in

in religious merit." He muſt eat this eleemoſynary food with his face to the eaſt, and, having eaten it, he muſt thrice waſh his mouth completely, and afterwards ſprinkle, with water, his eyes, ears, and noſtrils. Thus end the ceremonies indiſpenſable to the infant Brahmin: let us attend him, in maturer youth, to his ſtudies and his preceptor.

He muſt obſerve the moſt rigid temperance, and, as he grows up, the moſt unſullied chaſtity, even in thought; or all his prayers, and all the inſtructions of his venerable tutor, will only inflame his guilt. He muſt attend his preceptor, arrayed in all the enſigns of his order; at the beginning of the lecture perform an ablution; read, or hear read, the Veda with hands devoutly cloſed; and, after the lecture, he muſt perform a ſecond ablution, claſping, with both hands, the feet of the reverend father. He muſt, a thouſand times in a day if poſſible, pronounce to himſelf the myſtic word OM (the fire of the ſolar orb). There is a wonderful potency in that word; it purifies, irradiates, and ſublimes, the ſoul; it ſecures beatitude and gains immortality. He muſt perform,

perform, for his tutor, the office of a ſervant without reward. By his hands the conſecrated wood, for the ſacrificial fire, muſt be gathered; by his hand the flame kindled; he muſt carry the water-pots for ablution, the flowers, freſh earth, and cuſa-graſs, uſed in the ſacred ritual; and, at intervals, intenſely read the holy Veda, and implore food around all the diſtrict.

Nothing can be conceived more ſevere than this ſtate of ſervile pupillage, which continues to the twenty-fifth year; it ſhews the abject obedience in which the elder Brahmins hold not only the younger of their own order, but all the orders dependent upon them. Many of the ſtanzas, in this chapter, contain very excellent moral doctrines, though much overſtrained. By others we are filled with ſentiments of deteſtation and horror at the ſanguinary interdictions contained in them, for the moſt trivial faults and the moſt pardonable ſallies of youth. At the cloſe of this long vaſſalage, the Brammaſſari, when he leaves his preceptor to return to his natural father, is ſubject to a mulct, and muſt gratify the avarice of the holy Indifferent with the beſt gifts in his

his power, a piece of land, a preſent of gold, a jewel, a cow, a horſe, or ſome ſimilar preſent. The ultimate reward, however, for this patient ſervitude and voluntary munificence, is not a little flattering; for, the laſt ſtanza declares, that "the twice-born man, who ſhall thus, without intermiſſion, have paſſed the time of his ſtudentſhip, ſhall aſcend after death to the moſt exalted of regions, and no more again ſpring to birth in this lower world."

## CHAP. III.

In the third chapter are diſcuſſed the TIME and DUTIES of marriage.

Having paſſed through the ſtate of pupillage, according to the rigid rules laid down in the preceding chapter; having obtained his tutor's conſent, and received from him a preſent of the Vedas, the young Brahmin is permitted to eſpouſe a wife of his own tribe, but not within the *ſixth degree* of conſanguinity. Some very judicious, and other very curious, rules are laid down for his conduct in the choice of a wife; in particular, he is recommended not to marry any woman with red hair, deformed in her limbs,

limbs, or immoderately talkative, nor into any family that has produced no male children, or that is ſubject to any hereditary complaint, as phthiſis, epilepſy, and elephantiaſis. Let him, ſay the wiſe Inſtitutes, chooſe for his wife a girl whoſe form has no defect, who has an agreeable name, who walks gracefully, like a phenicopteros, or like a young elephant, whoſe hair and teeth are equally beautiful, and whoſe body has exquiſite ſoftneſs. A marriage, in any tribe below his own, degrades him, but ſtill it may be contracted; he may legally eſpouſe four wives according to the number of thoſe tribes. There are eight forms of marriage, four are holy and four are impure. They are enumerated, and the latter are to be avoided, becauſe it is declared that a guilty marriage invariably produces a miſerable offspring. If a Brahmin marry a girl of the Kattry tribe, ſhe muſt approach the nuptial fire bearing an arrow in her hand; if one of the Bice tribe, a whip; if one of the Sudra tribe, ſhe muſt hold the ſkirt of a mantle; I preſume as a mark of her being of the loweſt claſs. The inſtructions of this pious book are ſo very

minute as to deſcend to a deſcription of the proper periods, that is, the auſpicious nights, for conjugal embraces; and many other circumſtances which it would be neither uſeful nor decent to inſert in this epitome.

The Brahmin muſt be conſtant, affectionate, and indulge his wife in all the innocent diverſions and all the perſonal ornaments ſuitable to his rank and abilities; and the perfection of nuptial felicity is thus ſummarily deſcribed and forcibly recommended. "In whatever family the huſband is contented with his wife, and the wife with her huſband, in that houſe will fortune be aſſuredly permanent." Being now become a houſekeeper, maxims, appropriate to his new ſtation, are inculcated; the ſucceſſive ſacrifices and ablutions to all the gods and genii reſpectively; "by day, to the ſpirits who walk in light; and, by night, to thoſe who walk in darkneſs." The numerous and varied duties of hoſpitality, to different gueſts, according to their rank and conſequence, are now laid down and ſtrenuouſly recommended. They impreſs the mind with the livelieſt idea of the

generous

generous liberality of the benevolent race of ancient Indians. This chapter concludes with a very ample and curious detail of the ceremonies cuſtomary at that particular ſacrifice which the Indians denominate SRADDA, or oblation to the manes of their departed anceſtors, who are repreſented as exulting in delicious repaſts of rice, honey, and clarified butter, offered up to them by their grateful deſcendants; and as bleſſing the pious donors through a thouſand generations.

## CHAP. IV.

### *On Economics and private Morals.*

The art of prudently managing domeſtic concerns, and the legal and honourable methods by which a Brahmin may increaſe a ſcanty income, are here diſcuſſed: his chief buſineſs is about the altar, he muſt conſtantly attach himſelf to ſome conſecrated fire, he muſt duly and devoutly perform the offices of religion, and be particularly attentive to thoſe rites which are performed at the end of *the dark and bright fortnight, and at the ſolſtices*; another proof how ear-

ly they knew the ſolſtice and had brought aſtronomy into the aid of religion. In his perſon he muſt, like the prieſts of Egypt, preſerve a ſcrupulous cleanlineſs; his hair, nails, and beard, muſt be clipped; his paſſions ſubdued, his mantle white, his body pure; carrying in his hand a ſtaff, or wand, an ewer of water, a handful of *cuſa*-graſs, or copy of the *Veda*, with golden rings in his ears. The ſame rigid attention to cleanlineſs muſt be kept up in the minuteſt article of life and conduct; in his conjugal commerce, in the neceſſary evacuations, &c. (all deſcribed in very diſguſting detail,) a more than Mahommedan ſeverity muſt be obſerved. His manners muſt always partake of the gravity of his profeſſion; he muſt neither dance, nor ſing, nor play on muſical inſtruments, except in religious rites; he muſt neither play at dice nor aſſociate with any who do, or gain their livelihood by diſhonourable and low means: the company even of a king, not a rajah by birth, is an eternal diſgrace to the high-born Brahmin.

Having riſen with the twilight, having performed his ablutions, repeated the Gaya-

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tri, and lighted the ſacred fire, he muſt intenſely, throughout the day, ſtudy the *Vedas*, and regulate his conduct by its ſacred rules. Let him delight in truth, in juſtice, in benevolence; let him not give way to either arrogance or puſillanimity; neither be the votary of pleaſure, nor the ſlave of gloom and deſpair. Let him walk in the path of good men, the path in which his forefathers delighted to walk. Let him honour his parents, reſpect his gueſt, be tender to his offspring, gentle to his ſervants. Let him avoid covetouſneſs, and not be greedy of preſents, of which the Brahmins receive many. Let him be ſcrupulouſly delicate in regard to what food he eats and with whom he eats it: the moſt dreadful violation of his character is inſeparable from eating with one of an inferior caſt. Towards the concluſion of this chapter there occur ſome very ſublime paſſages concerning the ſoul, and the radiant rewards that will, in a future ſtate, be the conſequence of a life thus paſſed in unſullied piety, and the final verſe is as follows: " a prieſt who lives always by theſe rules, and

who is freed from the bondage of ſin, ſhall be abſorbed in the divine eſſence."

## CHAP. V.

### *On Diet, Purification, and Women.*

The precepts inculcated in this chapter are almoſt entirely of a local nature, and an enumeration of them, even in the moſt abridged way, would be little intereſting or inſtructive to an European. Under the firſt article, the banquet of blood, the food of animals, is poſitively forbidden, except of thoſe offered in ſacrifice; for it is expreſſly declared that "as many hairs as grow on the beaſt, ſo many ſimilar *deaths* ſhall the ſlayer of that beaſt, for his own ſatisfaction in this world, endure in the next from birth to birth." Under the ſecond head are diſcuſſed the neceſſary purifications appointed for thoſe who have been defiled by the touch of a dead body, for thoſe who have had illicit concern with women; for women themſelves, after the puerperal and menſtrual taint; for accidental contact with a *Chandalah*, or outcaſt: many of theſe are appointed to be by the *fire*, but far more by the *water*, ordeal,

deal, and the duration generally from three to ten days. The third article exhibits to us a ſtriking proof in how contemptible a light the amiable part of our ſpecies is holden by the faſtidious, frozen, ſelf-admiring Brahmin, who would bind the loveliеſt beauty in eternal chains, and ſubject the moſt tender affection to neglect and cruel dependence. By the Indian, in this reſpect abominable and unſocial, Code, a woman through every ſtage of life muſt be kept in perfect vaſſalage; in childhood, to her father; in youth, to her huſband; at his deceaſe, to her ſons and his kinſmen. The ſtern dogma decides that "a woman muſt never ſeek *independence*." Other circumſtances, equally degrading to the ſex, are added, *by the Brahmins*, we muſt ſuppoſe; for precepts like theſe can never have formed a part of the patriarchal code, ſince the Hebrew patriarchs well interpreted that paſſage in Geneſis relating to the creation of woman, that by her being taken out of the *ſide* of Adam, and not from any ſuperior or inferior part of his body, was denoted her *equality* with her huſband.

## CHAP. VI.

The ſixth chapter is entirely on DEVOTION, and diſcuſſes the duties incumbent on the third and fourth orders or degrees of Brahmin candidates for final beatitude.

As we have already, in the fifth volume of this work, rather extenſively detailed the hiſtory of the four ASHERAM, or degrees of Brahmin probation in this tranſitory world, under the diſtinct titles of BRAHMASSARI, GERISHTH, BANPERISTH, and SANIASSI; and, as this chapter is only a confirmation of the actual exiſtence of the painful trials deſcribed in it, little more remains for us than to mark out ſuch ſtriking particulars as could not then be noticed from the want of this authentic document. We have traced the young Brahmin through his years of pupillage, and have ſeen him pious, content, and happy, in the conjugal ſtate. Severer precepts impend over his more advanced life. When his muſcles become flaccid and his hair gray, and when he beholds the "child of his child," he muſt check the farther ebullition of paſſion, and ſeek the

ſecluſion

ſecluſion of the foreſt. His wealth, his idols, his houſehold utenſils, he muſt reſign to his children: clothed only in the hide of an antelope, or a veſture of woven bark, he muſt retire to his hermitage in the high embowering woods, and his food muſt be confined to bare roots and water. He muſt faſt more rigidly than ever; he muſt undeviatingly perform all the appointed ſacrifices to the gods of India ſuperior and inferior, to the conſtellations, and the manes of his anceſtors; and greatly multiply them at the awful period of the conjunction and appoſition of the moon, and at the winter and ſummer ſolſtices. He muſt alternately expoſe himſelf to the piercing extremes of intenſe cold and raging heat, or, to uſe the dreadful words of the Inſtitutes themſelves, "let him, in the *hot* ſeaſon, ſit expoſed to five fires, four blazing around him with the ſun above: in the *rains*, let him ſtand uncovered, without even a mantle, where the clouds pour down the heavieſt ſhowers: in the cold ſeaſon, let him wear humid veſture; and increaſe, by degrees riſing above each other in harſhneſs, the auſterity of his devotion, till he perfectly dries up his

his bodily frame." In this ſhort ſentence what a catalogue of varied and increaſing ſufferings; what an inventive genius for torture have theſe world-renouncing Brahmins! But, farther, if he poſſeſs any incurable diſeaſe, let him neither aim at palliation or cure; let him bear in ſilence the moſt exquiſite pains, and bleſs the gangrene that, like the unſatiated vulture, preys upon his vitals, If, by theſe and other excruciating modes, he cannot "ſhuffle off" the incarcerating body, let him ſeek eternal glory in this world and the next by finally becoming a SANIASSI.

Bearing in one hand a water-pot, in the other a ſtaff, his eye continually fixed on the earth, his lips cloſed in inviolable ſilence, the human organs totally ſubdued and utterly inſenſible to whatever paſſes around him, he muſt be totally abſorbed in profound reflection on the holy *Vedas*, on the tranſporting joys that animate the juſt in heaven, on the ineffable torments that await the diſobedient in hell. If any pious compaſſionating Brahmin bring him ſuch homely food as a Saniaſſi is allowed, in the ſhade and obſcurity of the night he may eat

eat it; or if he fill his pot with the water of the pure rivulet, in the ſame nocturnal ſeaſon he may drink it; but he muſt himſelf make no exertion, nor feel any ſolicitude for exiſtence upon this contaminated orb. Happily, for theſe infatuated devotees, there are always enough of the younger ſtudents of the holy tribe to attend them in their retirement; who think that, by miniſtering to their neceſſities, they catch a part of their ſanctity, and are entitled to a portion of their ſublime rewards; for, by long continuing theſe excruciating ſeverities, many of the former are by degrees plunged into a ſtate of ſtupid inſenſibility, and become perfect ideots; and the faculties of all are impaired almoſt to derangement. The corporeal organs, grown callous to every external impreſſion, are diveſted of all their functions, and the Saniaſli appears, to weak-ſighted mortals, as an immoveable ſtatue of wood or ſtone; but the entranced ſoul is in the higheſt heaven with the Eternal Mind from which it emaned, and waits only for the total deſtruction of its unworthy comrade to obtain complete and unbounded abſorption in the Deity.

Near

Near the concluſion of this chapter occurs the following whimſical, but ſtriking, deſcription of the *houſe of clay* tenanted by frail mortals.

" A manſion with *bones* for its rafters and beams; with *nerves* and *tendons* for cords; with *muſcles* and *blood* for mortar; with *ſkin* for its outward covering; filled with no perfume, but loaded with *fæces* and u—e.

" A manſion infeſted by age and by ſorrow, the ſeat of malady, haraſſed with pains, haunted with the quality of darkneſs, and incapable of ſtanding long; ſuch a manſion of the vital ſoul let its occupier always cheerfully quit."

Apparently replete with magnanimity and fortitude as are many of the precepts contained in this chapter, yet it is to be feared they have their foundation in the arrogant conceits of the Brahmins, that lead them to look down with contempt on the works of God and the fellow-creatures with whom they ſojourn in this terreſtrial ſphere, a kind of blind and deſperate enthuſiaſm, rather than a true religious fortitude of mind. Indeed, if there exiſted no other objection to their

celebrated

celebrated doctrine of the Metempſychoſis, it is a ſufficient one that its dogmas have a conſtant tendency to recommend the moſt determined *ſuicide*, and to wreſt from the hands of the Almighty that ſupreme power, which he alone by right poſſeſſes, of diſpoſing of the lives of the creatures which he has made.

## CHAP. VII.

This chapter relates to the mode of rightly adminiſtering the government, and the duties of the military, or rajah, claſs, who are by law appointed to that office.

In the ſix preceding chapters the duties, functions, and privileges, of the Brahmins, or firſt claſs, have been very amply diſcuſſed; the duties of kings, who form the ſecond, are now to be unfolded. Kings, were created, ſay the Inſtitutes, by the Ruler of the univerſe to maintain order and enforce law: without a king the world would quake on all ſides through fear from the prevalence of crimes: the Brahmin code, therefore, decidedly ſupports the doctrine of the divine origin of kings. The kingly character is ſpoken of in the moſt adulatory terms;

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he is repreſented as the ſun that illumines the world; the perfect eſſence of majeſty, by whoſe favour Abundance riſes on her lotos, in whoſe valour dwells Conqueſt, in whoſe anger Death. It is then ſublimely added, that, for his uſe, " Brahma formed, in the beginning of time, the genius of puniſhment, with a body of pure light, even abſtract criminal juſtice, the protector of all created beings." It is declared that a king, as he is the ſource of juſtice, muſt himſelf be a bright and exemplary pattern of every virtue. He muſt riſe at early dawn, he muſt diligently and humbly attend to the lectures of the Brahmins, the hereditary counſellors of the throne, in all the ſciences connected with his high office; he muſt keep his organs in complete ſubjection, for a king devoted to pleaſure is devoted to ruin; he muſt be neither addicted to gaming, nor intoxication, nor effeminate relaxations, as muſic, dancing, or ſinging; the inſidious tale-bearer, the malicious detractor, he muſt avoid as death. He muſt ſee with his own eyes, he muſt hear with his own ears, weigh all matters diſpaſſionately, and inviolably regulate all his deciſions by the rules laid

laid down in the Vedas. He muſt ſelect ſeven or eight miniſters, of noble deſcent, brave, and ſkilled in the ſcience of juriſprudence. With theſe he muſt daily diſcuſs the important buſineſs of peace, of war, and alliance with foreign ſtates, of his forces, of his revenues; with theſe he muſt conſult on the appointment of proper ſubordinate officers, civil and military, throughout his whole kingdom; and, with reſpect to other princes, he muſt ever be particularly circumſpect whom he ſends as his ambaſſador; the auguſt repreſentative, the ſacred image, of himſelf! He muſt erect a lofty fortreſs, amidſt inacceſſible mountains, to which he may retire in caſe of neceſſity and in time of war; around it, for many leagues, muſt ſtretch either a vaſt deſert or impenetrable foreſts. In time of peace he muſt reſide in his capital and among his ſubjects, whom he muſt treat as the children of his affection. Remembering his high birth and function, never to recede in battle, to protect the people, and honour the prieſts, is the ſummary character here given of a good king. In the ſubſequent pages the duty and conduct of the

the inferior rajah and the common ſoldier are diſplayed in terms that evince a conſummate knowledge of the art of war as anciently carried on in India. The rajah, it is declared, muſt be of a liberal and elevated mind, of morals uncorrupted, in combat invincible. With reſpect to the treatment of a vanquiſhed or a captured enemy, and the diviſion of the ſpoil, there are many precepts highly honourable and generous.

From his duty in the field, the Indian ſovereign is again traced back to his tribunal, and the arrangement of the domeſtic affairs of the empire. When not engaged in taking the exerciſe neceſſary to health, or at his meals, or in moderate enjoyment of the pleaſures of the Haram, he muſt ſtill be found on that tribunal, hearing cauſes and redreſſing grievances from dawn to the cloſe of day. Seated conſpicuouſly in the hall of juſtice, he muſt make no invidious diſtinctions; the addreſſes of the meaneſt of his ſubjects muſt be equally attended to with thoſe of the higheſt. On one ſide fiercely blazes the ſword of juſtice; on the other mildly gleam the ſymbols of benignity

nity and mercy. Then follows a ſeries of rules for regulating the commerce of his immenſe dominions: the ſtipulated ſums to be paid the ſovereign, for ſecurity and protection, by every claſs of traders, are minutely laid down, and the regulations muſt be allowed to be, in every reſpect, both wiſe and equitable.

## CHAP. VIII.

This long chapter diſcuſſes farther the important duties of the kingly office; and enters into various details concerning the private and criminal law of India.

As, in regulating the general concerns of the empire, he is to be aſſiſted by a council of ſeven or eight miniſters of the rajah tribe, ſo, while he preſides in the courts of judicature and is determining legal appeals, his judgement, in difficult caſes, is to be directed by ſome aged Brahmin of great experience and erudition in that branch of ſcience, aſſiſted by three others, forming a ſelect aſſembly, which is, in conſequence, called by the revered name of Brahma; *the court of Brahma with four-faces.* It is remark-

able: that, towards the commencement, Juſtice is allegorically repreſented as Vriſha, or *a bull*, and he who violates Juſtice as Vriſhata, or the *ſlayer of the bull*; which, as theſe Inſtitutes are ſaid to be the oldeſt promulgation of law in the world, next to the Moſaic, may have given the idea of the ſymbolical bull to *Minos*, the Cretan legiſlator, and ſuppoſed ſon of Jove; and poſſibly, as Sir William Jones intimates, from *Menu*, ſon of Brahma, may be derived the very name of that famous lawgiver. At leaſt it muſt be conſidered as a very ſingular circumſtance of ſimilitude that of the Indian Dhermaraja, or *king of juſtice*, the ſymbol ſhould alſo be a *white bull*; nor, in this retroſpective view of the mythology of ancient kingdoms, will the reſembling name of the Egyptian legiſlator Mnevis, and his companion *Apis*, be wholly forgotten. The deciſions that now follow are vaſtly numerous and varied, and, if minutely detailed, would be very unintereſting to the greater part of my readers, becauſe they have, in general, an immediate alluſion to the local cuſtoms, and the peculiar manners, and ſuperſtitious prejudices, of India. The legal

ſtudent,

ſtudent, and perſons reſident in India, will probably not reſt content with any analyſis, much leſs with the ſubſequent one, of neceſſity very ſummary, but conſult the book itſelf, which, by its republication in Europe, is now made ſufficiently public.

The laws concerning debtor and creditor are firſt diſtinctly laid down, and the rate of intereſt, upon different kinds of property pledged, ſpecified; that intereſt is always to be in proportion to the hazard run, and to increaſe or decreaſe, according to the high or inferior claſs of the perſon borrowing. *One and a quarter* in the hundred, per month, was the intereſt allowed by Vaſiſhta, and is the ſtandard regulation; but, in ſome very perilous caſes, even *five in the hundred*, per month, is permitted. The common average intereſt of money at Rome, in its meridian glory, was *twelve* per cent. per annum, which does not very widely differ from the Indian.

In the next place, the characters of witneſſes, proper to be admitted to give evidence, come under examination: that evidence muſt be ſolemnly given before ſome ſacred image, a ſymbol of the Divinity, whoſe preſence in that image is ſuppoſed to ſtrike into

his ſoul a holy awe: the moſt dreadful denunciations are throughout uttered againſt thoſe whoſe evidence is not founded in truth. The prieſt is permitted to ſwear by his ſacred character alone; the ſoldier by his horſe, his elephant, or his arms; the merchant by his gold or other articles of traffic; one of the ſervile, or fourth, claſs by imprecating on his head, if he ſpeak falſely, all poſſible crimes and their puniſhment. On great occaſions criminals are to be tried by fire and by water; and of him whom that fire burns not, or who ſinks not in that water, the veracity muſt be conſidered as perfect. A variety of very ſevere ordinances in the criminal juriſprudence of India has been already noticed; and ſome, ſtill more ſanguinary, may be found in the courſe of this chapter. In a country where agriculture and the preſervation of kine are an important concern, the moſt rigid laws concerning treſpaſſes, the removal of land-marks, and the maiming of cattle, are indiſpenſable, and they are here very ſtrictly and copiouſly laid down. The various ſpecies of *defamation* and perſonal *aſſault* are then reſpectively conſidered; the firſt is puniſhed by ſlitting the

tongue,

tongue, the latter according to the degree of injury received, but generally by maiming or amputating the limb that gave the offence, beſides the payment of all expenſes attending the cure of the mutilated perſon. *Theft* is the next ſubject conſidered. The king himſelf is firſt cautioned, by dreadful menaces, not to ſet the example by plundering his ſubjects. The puniſhments principally ordained, in this caſe, are impriſonment, confinement in fetters, corporal puniſhment, and heavy fines at the diſcretion of the judge. For ſtealing men and women, however, the puniſhment is death. Death alſo with horrible tortures awaits the foul *adulterer*. In addition to the enormous inherent turpitude of the crime, a political reaſon is here alleged for the ſeverity of the Indian code againſt this offence; it breaks down the eternal bulwark of the laws of Brahma, and cauſes a *mixture of the claſſes of men*. In this reſpect, reſembling our own ſacred Scriptures, it extends the guilt of adultery to mental inclination, to preſents, and to licentious converſation with the wife of another.

The freight of goods, and the exact prices to be paid as toll at ferries and in the guarded paſſages of mountains, together with the due regulations for weights and meaſures, next occupy the attention of the Indian legiſlator; a vigorous commerce is recommended to be kept up, by the ruling ſovereign, as the firm baſis of national wealth and greatneſs: the horrid traffic in human fleſh is ſanctioned, and the everlaſting ſervitude of the Sudra tribe is rivetted upon that unfortunate caſt by the laws of deſtiny, ſince the Sudra was born a ſlave, and, when even emancipated by his indulgent maſter, a ſlave he muſt ſtill continue: "*for, of a ſtate which is natural to him, by whom can he be diveſted?*" Thus inconſiſtent, thus incongruous, is the Hindoo code, which, while it anathematizes thieves, permits the magiſtrate to ſhare in the plunder, and dooms a conſiderable portion of the human race to inſurmountable ſlavery, at the very moment that it ſtrenuouſly inculcates the ſublime dogma of the IMMORTALITY OF MAN.

CHAP.

## CHAP. IX.

This chapter is a continuation of the ſubject of the former; and ſo important to the general welfare of the ſtate does the Indian legiſlature conſider connubial felicity, that it has provided a particular ſeries of laws for ſettling the diſputes that may ariſe in domeſtic life, between man and wife. Its impartiality, however, is deeply violated by the illiberal reflections again thrown, in the initial paragraphs, on the fairer part of the creation. They are declared utterly unfit to enjoy independence; they muſt be kept through life under the ſevereſt reſtrictions; and have nothing to do with the text of the Vedas, as if they were an inferior order of beings, and not accountable hereafter for their conduct. It muſt be owned, however, and lamented, that theſe degrading ſentiments, in regard to the ſex, are not peculiar to Hindoſtan; but have ever been too common over all the deſpotic kingdoms of the Eaſt, where women have immemorially been ſubjected to the moſt menial domeſtic offices, and hardſhips ill ſuited

to the tenderneſs of the female conſtitution. The diſguſting nature of the ſubject, added to the indelicacy of many of the precepts here given, induces me rather to refer the reader to the book itſelf than to dilate upon them. The following energetic ſentence, however, can by no means be omitted: "the man, who preſerves his wife from *vice*, preſerves his offspring from the ſuſpicion of *baſtardy*, his ancient uſages from *neglect*, his family from *diſgrace*, himſelf from *anguiſh*, and his duty from *violation*." In this chapter occurs the permiſſion, previouſly noticed as ſo congenial with the Levitical law, Deut. xxv. 5, for the brother to aſcend the bed of the deceaſed brother, if the widow *have no iſſue*, for the purpoſe of producing ſuch iſſue. It is to be obſerved that the permiſſion, in the Hindoo code, is limited to the production of *one ſon only*; ever after both the brother and the widow, who have thus united, muſt live together like father and daughter by affinity. This law ceaſed among the Jews at the period of the Babyloniſh captivity; and, in the Cali age, is forbidden in Hindoſtan.

To

To the laws reſpecting legal union and iſſue are properly ſubjoined thoſe concerning *inheritance*. In theſe laws, and in a variety of inſtances, throughout the volume, may clearly be traced the remote origin of thoſe which, in Europe, we call *feudal*. The elder brother is ſtated to be in the place of both father and mother to his younger brethren, and they are to look to him as to a parent: in this venerated ſituation there can be no wonder at his being appointed to ſucceed to the greater part of the father's fortune, and to all his beſt goods and chattels; the remainder is divided, in proportion to ſeniority, among the other ſons. The widow muſt be ſupported by the benevolence of her eldeſt ſon. To the daughters, unmarried at the deceaſe of their father, each brother ſhall give, by way of portion, a fourth part of his own diſtinct allotment. Eunuchs, perſons expelled from their caſt, ideots, and thoſe born blind, deaf, or dumb, the impotent, and incurably diſeaſed, are declared incapable of inheriting; but the heir, under ſevere denunciations of ſpiritual vengeance, is bound to ſupply them through life with

food

food and raiment to the beſt of his abilities. Under this head of inheritance will be found ſome very nice and wiſe diſtinctions, worthy the minute attention of the legal ſtudent, but into the diſcuſſion of which it cannot be expected that I ſhould enter.

The laws againſt *gaming* engroſs another grand diviſion of the Hindoo penal code, and the penalties are extremely ſevere, whether it be performed with dice, or with living creatures, that is, by matches between *rams* and *cocks*, to which the Indian nation have ever been greatly addicted. A prevailing ſpirit of gaming is truly ſtated to be the forerunner of deſtruction to princes, and the ſubverſion of the empire. The ſovereign muſt labour to ſuppreſs it, therefore, by every poſſible means, and puniſh the profeſſed gameſter and keeper of a gaming-houſe as open thieves. High fines and corporal ſeverities, according to the elevated or inferior claſs of the offender, are the allotted puniſhments. To the above enumeration of crimes ſucceeds, in regular order, the detail of a great variety of offences and laws that could not well be claſſed under any of the preceding general heads.

Iniquitous

Iniquitous and ambitious miniſters, who, inflamed by the blaze of wealth, proſtitute their high ſtations to the purpoſes of gain, are to be ſtripped of their property. The forger of royal edicts is to be put to death. The inceſtuous violator of the *paternal bed*; ſoldiers who intoxicate themſelves with arrack, mead, or rum; the ſacrilegious ſtealer of the gold of Brahmins; are to be ranked among criminals of the higheſt degree, and puniſhed accordingly. The perſon who is guilty of cheating in the public bazar, and he who robs in the ſecluded foreſt, receivers of bribes, extorters of money by threats, debaſers of metals, fortune-tellers, profeſſors of palmeſtry, and a long train of petty offenders, whoſe crimes often evade the vigilance of the public functionary, are to be hunted out by means of ſpies and emiſſaries *once thieves themſelves, but reformed*, who, by careſſes, preſents, and other gratifications, having made their way into their hearts and affections, are to turn public informers, and become the means of dragging them from their haunts to the tribunal of national juſtice. Thoſe who ſtand by, neutral and inactive, when they are witneſſes

neſſes to attacks by robbers, or who ſupply them with ſuſtenance, are to be conſidered as equally guilty, and ſhare their puniſhment. The deſtroyer of a dam, the violator of a pool or well, the obſtructer of a water-courſe, the breaker of a foot-bridge, of a public pavement, or paliſade, ſhall all be reſpectively and highly mulct. The priſons and places of correction are ordained to be placed as near as poſſible to the public road, that all men may mark the puniſhment of guilt, and profit by the groans of the ſuffering. Then follows a farther recapitulation of the character and duties of a great and good king, and the innumerable bleſſings that await an empire thus wiſely governed. The chapter concludes with laying down a variety of general precepts for the regulation of the two laſt claſſes, the *commercial* and the *ſervile*.

Of theſe the VAISYA (or Bice) is the ſuperior; his proper buſineſs is agriculture, commerce, and keeping of cattle. While to them the Lord of all created beings intruſted the herds and flocks that range the mountains and the valleys; to the Brahmin and the

Khettri

Khettri he gave in charge the whole human race. With the value of all the precious gems and pearls with which India abounds, with the produce alſo of all foreign regions, with the correct modes of meaſuring and weighing, with the excellence or defects of all vendible commodities, and the means of breeding cattle with large augmentation, the Vaiſya ought to be intimately acquainted, for they are the occupations allotted him by the irrevocable voice of deſtiny. He muſt alſo be converſant in various dialects, muſt erect warehouſes, ſafe and ſubſtantial, for the different articles of commerce; he muſt be inceſſantly vigilant, and may even indulge a ſolicitude for wealth, ſo far as that ſolicitude does not ſtint his benevolence to ſentient creatures. In reſpect to the SUDRA, he muſt be content to *ſerve*; that is his unalterable doom. To ſerve in the family of a Brahmin is the higheſt glory of a Sudra, and leads him to certain beatitude. He muſt, in that humble capacity, in a particular manner, ſtudy purity both of body and mind; be mild in ſpeech, and patient of labour; this will ſecure him a more eminent claſs in another tranſmigration.

CHAP.

## CHAP. X.

### *On the mixed Claſſes, and on Men's Duty in Times of public Diſtreſs.*

The tenth chapter of the code is neither very long nor very important; the firſt part has reference to the genealogy of the tribes, and the purity of their blood. In proportion as they marry in the tribes below them, (for, a Brahmin may have a wife from each tribe,) the ſons bear the ſtamp of degradation: if he takes one from the Khettri tribe, he is degraded in the firſt degree; if from the Vaiſya, in the ſecond; and ſo on. An endleſs enumeration of inſtances of this kind follows through all the various claſſes; their duties are ſtated and their occupations fixed, ſince, in fact, thoſe born of mixed blood belong to no original claſs, and conſequently can have no appointed profeſſion. A pictureſque deſcription of the miſeries of the CHANDALAH, or outcaſt tribe, ſucceeds, I preſume, *in terrorem* to the others. It is ordained that they exiſt remote from their fellow-creatures amidſt the filth and dirt of the ſuburbs; their ſole wealth muſt conſiſt

conſiſt in dogs and aſſes; their clothes muſt be the polluted mantles of the deceaſed; their diſhes for food, broken pots; their ornaments, ruſty iron; their food muſt be given them in potſherds at a diſtance, that the giver may not be defiled by the ſhade of their outcaſt bodies; their buſineſs is to carry out the corpſes of thoſe who die without kindred; they are the public executioners; and the whole that they can be heir to are the clothes and other wretched property of the ſlain malefactor. A great many other particulars of this exiled tribe are added by other authors, which I have elſewhere enumerated: and they form, themſelves, no weak proof of the unrelenting ſpirit of the Hindoo code, that could thus doom a vaſt claſs of people, a fifth of the nation, to unpitied, perhaps unmerited, wretchedneſs. An Indian, in his bigotted attachment to the Metempſychoſis, would fly to ſave the life of a noxious reptile; but, were a Chandalah falling down a precipice, he would not extend his hand to ſave him from perdition.

The ſecond portion of this chapter diſcuſſes the queſtion how, in times of great adverſity

adverſity or diſtreſs, the individuals of the four tribes, unable to ſubſiſt on their uſual occupation, are to obtain a maintenance. A Brahmin, it is determined, unable to live by the duties of his profeſſion, may even take up arms and become a ſoldier; or he may enter into commerce, and ſubſiſt as a mercantile man, or finally, if abſolutely neceſſary, by tillage and attending cattle. A great many more reſtrictions, however, are laid upon the Brahmin, thus occupied, on account of his purer character, than on the ſoldier, the merchant, and the herdſman, engaged in their native employ; many articles uſed in war and commerce being abſolutely forbidden *him* even to touch, which are familiar to *them*. A Khettri, or military man, in diſtreſs, may ſubſiſt by all theſe means in the deſcending ſcale; but he muſt never aſpire to the honours of the ſacerdotal function. The mercantile man and the Sudra may, in the ſame manner, deviate from their own immediate line of life; but nothing of this kind is to be done without urgent and indiſpenſable neceſſity, ſince it immediately breaks in upon the ſublime laws of Brahma,

ma, inſtituted at the beginning of time, and violates the eternal order of the Indian caſts.

## CHAP. XI.

### *On Penance and Expiation.*

A conſiderable portion of the rules and precepts laid down in this chapter is a mere repetition of thoſe inculcated in the ſixth chapter, or that on DEVOTION: ſome are very ſevere, and others even ludicroust What is *new* on the ſubject need only be noticed amidſt the terrible diſplay which it exhibits of expiatory tortures. Theſe expiations, however, are not always by corporeal puniſhment; they may be compounded for by high fines paid to the gods, and their vicegerents the *Brahmins*. The ſlayer of a Brahmin undeſignedly, if he be of the military tribe, muſt expoſe himſelf to be ſhot to death by archers, or caſt himſelf headlong thrice into a blazing fire. He, who has intentionally drunk inebriating liquor, may expiate his crime by ſwallowing ſpirit on flame, or by ſeverely burning his body. For ſtealing from a Brahmin, he

muſt carry to the king, on his ſhoulder, an *iron mace*, with which the ſovereign muſt ſtrike him, and, whether he die or not by the blow, the crime is expiated. He, who has accidentally killed a cow, muſt array himſelf in her hide, and, thus inveſted, muſt, for three months, inceſſantly attend the herd to which ſhe belongs, and guard them from tigers by night and by day. For killing ſnakes and other animals, offerings are to be made to the Brahmins, proportioned to the purity and value of the animals ſlain. An immenſe catalogue of ſmaller offences, or rather of acts only criminal on Indian ground, are enumerated, and the expiations preſcribed are, in general, long abſtinence from food, ſwallowing the urine of a cow, prolonged ſuppreſſion of the breath, ſitting up to the neck in water, or ſome ſuch ſingular puniſhment. For the greater offences, among other inflictions, we find mentioned the *ardent penance*, as it is rightly enough denominated, boiling milk or oil; hot clarified butter; hot ſteam, termed *paracá*; total faſts of dreadful length, twelve days and nights, if ſuch faſts could ever be performed;

formed; the *lunar penance*, or *chandrayana*, in which only eight mouthfuls of undreſſed grain a day are allowed to be eaten, four in the morning and four at night, during a whole month. The wretched penitent, during all this time, muſt never ſuffer his wearied lids to cloſe, nor his fainting feet to pauſe. As he ranges the deſert foreſt, or ſtems the torrent wave, he muſt perpetually repeat the holy *Vedas*, keep all his organs in entire ſubjection, and ever keep his eye rivetted on the ground. Never was ſuperſtition carried to ſuch dreadful extremes, and what is thus ſternly ordained has been known to be as rigidly executed, and is, in fact, at this day executing in India.

## CHAP. XII.

### *On Tranſmigration and final Beatitude.*

Such, as have been deſcribed, are the duties incumbent on the four great tribes: the ultimate reward, the radiant meed, of toiling virtue is now to be revealed. Making a diſtinction between the vital ſpirit and the intellectual ſoul in man, the code declares man accountable to YAMA, the Hindoo

Pluto, for the minuteſt actions of his life and the moſt hidden movements of his heart. Though the preſent body be conſumed to aſhes on the funeral pile, yet it affirms that another body, compoſed of finer nerves and elements, in order to be ſuſceptible of torment, ſhall certainly be aſſumed by that ſoul hereafter. Senſible of theſe migrations, therefore, ſays Menu, let each man continually fix his heart on virtue: the Metempſychoſis, therefore, was invented to build up mankind in virtue and piety. The human ſoul is declared to be inveſted with three diſtinct qualities, that of *goodneſs*, of *paſſion*, and of *darkneſs*. Between the former and the two latter of theſe there is a violent and perpetual ſtruggle, and, as either the one or the other proves victorious, the ſoul either mounts upwards on eagle pinions to the celeſtial regions, its native and ſublime abode; or is depreſſed to PATALA, the infernal regions, and becomes the companion of monſters engendered in darkneſs and fiends that delight in blood. Similar to the paſſions to which they devoted themſelves on this probationary ſcene, will be the animal into which, in a future birth, the

the migrating ſoul will deſcend. The form of the furious lion and tiger will receive the ſoul in which anger and revenge predominate. Unclean and ravenous birds are the allotted manſion of ſouls polluted with luſt and blinded by ambition. Noxious and loathſome reptiles are the abode of thoſe debaſed by groveling and ſordid paſſions. To ſome, vegetable and mineral ſubſtances are the priſon aſſigned. Of others, ſharks, crocodiles, and a variety of aquatic monſters, are the deſtined repoſitory. The profoundeſt caverns of the ocean, and the bowels of the higheſt mountains, ſwarm with tranſmigrating exiſtences.

The code afterwards expreſſly adds, that, in the ſame preciſe degree that vital ſouls, addicted to ſenſuality, indulge themſelves in forbidden pleaſures, ſhall the acuteneſs of their ſenſes be raiſed in their future bodies, that they may endure analagous pains. For the utterly abandoned, it mentions a place reſerved of intenſe darkneſs; the *ſword-leaved* foreſt, and other places of binding faſt, and of rending multifarious tortures, await them: they ſhall be mangled by vultures and ravens; they ſhall ſwallow cakes boiling

hot, alluding to the ſacred cakes offered to the manes of their anceſtors; ſhall walk over burning ſands, and feel the parching flame as if baked in a furnace. They ſhall experience the alternate extremities of cold and heat, and be ſurrounded with unutterable horrors. All this they ſhall endure for innumerable ages, and then again begin their probationary career on earth.

After conſidering the Metempſychoſis on the dark ſide of the portrait, in the deſcending ſcale, let us conſider it in the aſcending line.

The vital ſoul devoted to goodneſs and purity, that has paſſed the probationary terreſtrial period in profound ſtudy of the Vedas, in practiſing ſevere auſterities, in an entire command over the ſenſual organs; that has avoided all injuries to the brute creation, and has paid due reverence to parents; has inſured to itſelf final beatitude. Some very ſublime and noble ſentiments of the Deity ſucceed. A true knowledge of the ONE SUPREME GOD is declared to be the moſt exalted of ſciences, for in that knowledge and in his adoration are compriſed all the duties incumbent on man,

of

of man, wandering in darkneſs and error, amid the nether ſpheres, but himſelf an emanation of the ſkies, a portion of the SUPREME SOUL, whence are diffuſed, like ſparks from fire, innumerable vital ſpirits. Then follows this very elevated paſſage, which I ſhall give unabridged. "Equally perceiving the Supreme Soul in all beings, and all beings in the Supreme Soul, he ſacrifices his own ſpirit by fixing it on the Spirit of God, and approaches the nature of that Sole Divinity who ſhines by his own effulgence." What great pity is it that a nation, who could think and write with ſuch purity and ſublimity on ſacred ſubjects, ſhould ever have debaſed their theology by extravagant allegories; but ſuch is the genius of the Hindoos, and indeed of all the eaſtern nations, though the moſt frozen critic would ſcarcely object to them, were they always as temperate as in the following inſtance. "As fire, with augmented force, burns up even humid trees, thus he, who well knows the Veda, burns out *the taint of ſin* which has infected his ſoul." Having thus laboured to burn out the taint of ſin from his polluted ſoul, (but why theſe

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ſtrong and repeated expreſſions concerning the deep and radical ſtain with which the ſoul is contaminated, if they did not believe in *original ſin* and *the fall of man?)* having rigidly performed all the preſcribed duties of his caſt, the ſoul of the virtuous Indian, in the future ſcenes of its exiſtence, migrates through and among objects as tranſcendently beautiful and delightful as the depraved ſpirit performs its painful peregrinations through creatures deformed and diſguſting. Its deſtined receptacles hereafter are the loveliеſt and moſt enchanting objects in the vaſt limits of nature and in the ſtill more extended fields of fancy. Elyſiums, ſuch as poets never yet feigned, and paradiſes, ſuch as inflamed enthuſiaſm, in its loftieſt flight, never dared to conceive, await the beatified ſpirit. After bathing for ages in this abyſs of joys, that it may be the better prepared for thoſe of infinity, the pure ſpirit aſcends the empyreum, and, in the firſt ſtage, joins the order of demigods, wafted in airy cars through the expanſe of heaven, while the genii of the zodiacal ſigns and lunar manſions hail and embrace their delighted comrade. In the

next

next ſtage, he mounts to the deities of the inferior heaven, and triumphantly joins the genii of the immortal *Vedas*, the regents of ſtars, *not in the path of the ſun and moon, i. e.* the moſt remote from human ken, blazing on the extreme verge of creation, the divinities that preſide over the great cycles of time, and the ſuperintendants of the vaſt univerſe. In the laſt ſtage, he exultingly paſſes the flaming bounds of time and ſpace, and is received into the higheſt heaven of Brahma, *awful with four faces,* inſhrined in light more refulgent than a thouſand ſuns, eternally to participate of his glory and be abſorbed in his eſſence.

THE END.

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